Stories in Pictures

by Richard Douglass

A large adjustable mirror over the demonstration table gives students a bird's eye view. This table is also equipped with four headlight. If your students can use, they should get the most out of your demonstration.

("You Really Have To Know Your Stuff To Explain It To 4th Graders")

Donald G. Barber, Owatonna, Minnesota, Voc-Ag Instructor, uses this unique teaching method. His FFA members conduct informative lessons for elementary students on corn harvesting, head silage and grain quality as part of their summer orientation project. Bradley Avery, a recent Regional Star Farmer, and David Jahnke show 4th graders how a corn combine removes the grains from the cob. (Photo supplied by Donald G. Barber, Owatonna, Minnesota.)

ACCOUNTABILITY: SUCCESSFUL STUDENTS, THE RESULT OF CAREFUL PLANNING

Theme—PLANNING THE STATE AND LOCAL PROGRAM
The Agricultural Education and Extension Magazine

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COVER PHOTO
Mr. Cecil Caudle, District Engineer with T.V.A., demonstrates here to connect a main switch box to vocational agriculture students of Franklin High School, Franklin, Kentucky. An example of the wise use of resources people. (Picture by D. E. Boyles, Kentucky State Department of Education).

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EDPRESSES

From Your Editor...WHEN DECIDES WHAT IS TO BE TAUGHT IN YOUR PROGRAM?

How much time have you devoted during the past year to helping write new courses of study or revising existing ones? Do you involve an advisory committee in reviewing possible courses, and to what extent do you involve laymen and students in making curriculum decisions? We must remember that it is the citizens’ school, and that hard earned tax funds are being used to support a local or area school budget which probably has from one-half to three-fourths devoted to professional salaries. This is an indication that the citizen taxpayer is placing considerable dollar trust in us as the professional educator to know how to give every student and taxpayer his money’s worth.

The citizen has the right and the responsibility to be heard in the decision-making process of determining which course groups should be served and what subject matter each shall be taught.

You as the local professional agricultural educators, are the people who must take the step to recommend citizen involvement in planning the local vocational program. If you do not do so, the layman will be content to ‘let the teacher decide’ what to teach.

Most State Plans require that local advisory committees be utilized when developing local plans of vocational education. Even though the School Board is held responsible for submitting the local plan, you as the professional agricultural educator should be familiar with procedure for writing a local plan, and be prepared to actively assist in its development.

Unless you are willing to provide leadership in preparing a local plan for vocational education, and to involve the students and laymen in the planning process, they will view the vocational program as ‘our program,’ and the positive support you should receive will influence every aspect of the instructional program.

...TWO ENDS OF A RUT

Harold Shoup
Supervisor, Agricultural Education
State Department of Education, Kansas

Are we in agricultural education victims of our own success? Do we sometimes find ourselves in a rut in which we neither look forward nor backward, but stand listlessly on the spot? The comfort of such a rut is often deceptive, because without making future plans on how to keep on post achievements we accomplish little.

The founder of Farmland Industries, suppliers of the Farm Corp and most generous supporters of agricultural education, wanted that his company never fell into this type of rut. Today, on the wall of the director’s room in the Kansas City headquarters, a word of wisdom is seen by all. It reads, "Make no little plans, they have not the power to stir men’s souls. This warning to today’s leaders simply states that a "small goal, no matter how fully achieved, simply cannot keep their great corporation expanding and meeting the needs of today’s agriculture.

Approximately fifty years ago agricultural education leaders put together a plan called vocational agriculture with a youth program called the FFA (Future Farmers of America), that stirred men’s souls nationwide. The wisdom and far-sightedness of these great leaders was shown in developing a program that has met the test through the years.

Progress has been made at a number of national conferences with the objective of a new relevant, feasible, and far-reaching program that might be acceptable to all involved. Agreement on such a plan has been difficult because of varied needs in agriculture in different states. If it is not possible to have a complete meeting of the minds on the national level, it is possible that state and local agriculture leaders can agree on a challenging plan that will stir men’s souls in each state. If it is possible for agriculture education leaders to reach an agreement on the state and local level, then perhaps in the future a greater many states will be able to agree on a united program.

The question which I feel is most important today is not should there be a change, but what specific changes should be made and what planned procedure and guidelines should be followed. I am sure that each state has the leadership to

Guest Editorial

(Continued on next page)
Today we must develop a new plan using those areas that are still relevant, but with a flexible plan that will again stir men's souls at least nationwide.

I want to present a program in agricultural education that is relevant, flexible, and acceptable.

There is danger in mapping out a new program that has not been tried. May I illustrate my point with a story. A surgeon had amputated a patient's leg, but unfortunately he made a mistake. The surgeon told his patient that he had made a mistake and had amputated both legs. He gave the patient one last twist. "I have amputated the wrong leg." But now for the good news. "The bad leg will get well."

Every individual who is involved in agricultural education has ideas which should be considered. It is difficult, however, to take a large group and come up with a specific plan. To accomplish this, a few selected people should be assigned this responsibility. After an identifiable proposal has been resolved, it should then be presented to agricultural educators for their acceptance, rejection, or change.

The following points should be given careful consideration in mapping out a plan to achieve new horizons in agricultural education. The first significant area sounds simple, but gets more complicated as you try to identify each segment. What job opportunities will be afforded our graduates? In most states across the nation, agriculture jobs look bleak because of the program planning. This lack of information has been a hindrance in attempting to expand and develop new programs in agricultural education. It has been difficult to plan for the future without the knowledge of what jobs are available at local, state, and regional levels. A limited amount of information is available, and all of this information is from a source where we can build a foundation. Minnesota vocational agriculture instructors, with the assistance of the Division of Vocational Education teacher educators, have solved this number one challenge by surveying the agribusiness industries in their state and identifying the jobs available.

The second challenge involves knowing which of the seven taxonomies the participants prefer. A survey of vocational agriculture students was made in Indiana and proved successful in determining the skills of the individual student enrolled in the classes. This will assure the program of sufficient interest in training for the jobs which exist.

After the study of job opportunities and the survey of students' interests have been completed, the third step is to initiate the program to be offered by giving preference to these areas with greatest enthusiasm.

The future success of our efforts will depend on the instructor and the teaching material available to him. The philosophy that every instructor must be a master of all areas in agriculture with little or no assistance from outside sources leaves much too be desired. Pertinent lesson plans are essential to effective teaching.

Some states have already done curriculum development, but others have suffered because of this lack of funds. In such cases, there are individuals who have skills and knowledge in specific areas. Mini-grants should be made to those individuals with expertise to produce the kind of material that will be needed by the instructor. Mr. Jim Douglas, Assistant Director of Vocational Education at the State Department of Education, Columbus, Ohio, states that program planning is the number one priority of the states. With the dollars coming together in each state, we must get more bang from the buck.

The new suggested agriculture program is outlined below:

1. Do the program meet the needs of the agriculture education field?
2. Do students have options for possible employment in the agriculture field?
3. Is the program relevant to education? (adds meaning to education.)
4. Is the program flexible to build, but not break?
5. Is there a minimum of fifty percent placement for the secondary level and seventy-five percent placement on the post-secondary level?

Boi Kreisel was asked what was in his mind just before he jumped his mother and three cars. It is reported that the reply was "Go, man! go!"

Likewise, young people of today who want to be enrolled in this new program need the advice of agriculture education leaders — "Go, man! go!

PLANNING LOCAL PROGRAMS OF AGRICULTURAL EDUCATION

Keith Fiebus
Teacher Educator
Agricultural Education
Washington State University
Pullman, Washington

Sound and effective planning is paramount to good programs of agricultural education. Planning provides direction to programs. However, a prerequisite for a good annual and long-term program plan is adequate policies for agricultural education.

It is important to distinguish between policies and the programs of agricultural education. Policies are general principles of operation. They are designed to be applicable over a long period of time, and should be developed by the clients aided by the advice of educational leaders. The program is the means of carrying out the policies. The program contains the procedures and steps to be taken. It is developed by the professional staff with the aid of citizen advice. Policies establish the framework for agricultural education and allow considerable freedom for the school administrators and the teachers to design methods for accomplishing and fulfilling these policies.

Basically, the development of a program plan indicates a process. The plan should be based on the community needs for the future. Program objectives should be established and procedures for reaching those objectives should be determined. Methods of evaluating program outcomes should be stated.

Problems in Program Planning
Several problems or difficulties are noted. Recent social, economic, and political trends have aggravated many of the items mentioned.

Policies of the School and Community
1. Often the school policies pertain to agricultural education are unwritten and implied.
2. Policies may have been developed without full expression and review of lay citizens.
3. Policies may not be up to date. They may need revision.
4. There may be no established policies at all.

Needs to Be Met
1. The groups of people to be served are increasing. The program may not reflect the broader scope of need.
2. The manpower needs are changing. Many established occupations and jobs are declining. New occupations and careers are emerging.
3. Agricultural education may very well serve as a means of meeting other personal and social needs. Examples are programs for the disadvantaged, handicapped, and other groups that are physically, culturally, and socially different.

Changing Trends in Political and Educational Policies
About School Programs
Some of these trends are listed below:

1. School districts are being developed as "community laboratory" learning centers. Community businesses are being utilized for career exploration and observation, meaningful laboratories, and job experience.
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The agricultural teacher is responsible for providing a program that will meet the agricultural education needs of all the people in the community.
COMMUNITY ORIENTED CURRICULAR REVISION

The traditional four-year production oriented program of agricultural education no longer meets the needs of the student and the community at Westwood High School. The surrounding community now has doubled in size to 60,000 people, which is ten years and is expected to double once again in the present decade. This drastic change places the vocational agriculture department in a growing urban community.

There is still some production farming in the school district. Olive production is quite heavily concentrated in the area and the growing urbanization of the community has led to a great increase in horticultural businesses in the community.

Thought had been given to the changing needs of the community with the selection of new and replacing teaching personnel for the vocational agriculture department. Each of the three teachers now composing the vocational agriculture department at Westwood has a different teaching specialty. One teacher is a specialist in livestock, one in poultry raises, one in animals care, and the other in ornamental agriculture.

With these facts in mind, the vocational agriculture teacher engaged in the particular agricultural business being surveyed, by identifying existing and anticipated job titles, and the specific educational levels and the apprenticeship and part-time employees in each. The number of each job title at present and if the job title was a common practice in the school were also recorded.

Three of each discipline were surveyed and identified the type of employment of these agricultural occupations in the area and the community and the curriculum and the vocational agriculture department was updated to meet these trends.

The second form used in the survey identified the knowledge and skills necessary for entry into these occupations. Based on this survey curricular changes could be made to more fully develop and round out the offerings of the vocational agriculture department.

The survey was to evaluate the curriculum possibilities for occupational experience education if there were sufficient training stations where students could be placed.

A map of the school district was secured in order to determine the boundaries of the district and to guard against overlapping any geographic area in the district. Using the school district map and the local telephone directory, a master list of all agricultural producers, producers, and agencies was developed. Further development and revision of the master list was accomplished through the use of local tax rolls of the school district, the Agricultural Extension Office, the Chamber of Commerce, and personal contacts with local businesses and agricultural producers.

An attempt was made by telephone to contact each agricultural business. Set up an appointment for the personal interview was held. It was explained to each person that the information received on each farm would be kept in strictest confidence, and that only the figures taken would be combined with all other surveys.

The first survey instrument was used to identify the type of employment of persons engaged in this particular agricultural business being surveyed, by identifying existing and anticipated job titles, and the specific educational levels of instruction within the department. In addition, the objectives for each course were developed. The second survey was revised so that student progress could be measured and evaluated.

The vocational agriculture teachers at Westwood High School feel satisfied that they are providing curricular offerings that are tuned to the educational needs of the students and the community they serve.
PLANNING THE STATE AND LOCAL PROGRAMS

E. W. Gustafson
State Supervisor
Agricultural Education
Pierre, South Dakota

Whenever an individual or a group of individuals has a job, trip, or activity, some planning is carried out. It is a necessary part of our society that we plan for anything that is to be done.

In the implementing of programs, whether they are local in nature, or intended for a more extensive organization, they must be carefully thought through.

"Clearer Education" in agriculture is broadly defined as an "organized instructional program involving the combinations of the agricultural production, management, operation, and associated services." When setting goals and objectives for programs, it is necessary that a study of local and state needs be made. Collecting data for agricultural occupations has been neglected, and as yet is not adequate to provide definite data.

Plans, to be effective and realistic, must be based on student needs and job opportunities. The fact that soil, water, and getting larger and fewer must be accepted; also that more people are being employed in the agricultural industry has been well documented. In the midwest the Association of State Departments of Agriculture 1971 edition of "Midwest Agriculture" provides statistics that are most revealing. For example, the report indicated South Dakota with a total employment of 635,000 persons. Of these, 66,000 are family and hired farm workers, and 99,000 are non-farm agriculture workers. The facts are hard, but they provide information that is helpful in program planning. Of the 66,000 farm employees, 58,000 are farm family workers, and 8,000 are hired. With a work force this dimension in production agriculture, it is evident that strong, viable, and up-to-date instructional programs are needed.

The non-farm agriculture employment needs are not so well defined, but definite three year career considerations can be helpful. The numbers of establishments that provide sales and services are given. As examples, there are 397 farm equipment dealers, 182 garden and retail sales establishments, numerous brick and tile manufacturers and manufacturing establishments for which statistics are available. It is interesting to note that our state has over 650,000 principal machines on farms, and it is estimated there are 10 per cent replacement of these each year. This information can be found for each of the midwest states that cooperated in this report.

In 1969 a study of "Off-Farm Occupational Opportunities and Training Needs" for South Dakota by Dr. H. W. Guadig and James Polzin was published. Included in the report are: major employment needs, characteristics of farm families, future opportunities, and qualifications for entry and advancement.

The types of information provided through the two above mentioned publications provide a basis for realistic program planning. Interpretations of the statistics must be made by the individual who has the responsibility for program planning at the local or state level.

There is a continual need for substantive information that will provide data which will give assistance to the solution of the program goals and objectives.

Kennie E. Gray
Assistant to Director
The Center for Vocational and Technical Education and Assistant Professor of Agricultural Education
The Ohio State University

A planning tool for local teachers

The DELPHI Technique may be useful in accomplishing a host of planning activities in which group opinions are needed, including: establishing goals or needs to be served; gaining a prediction of trends in various occupations within an employment area; and establishing priorities to be served by an instructional program. Typically, the technique involves administering two to four questionnaires to a group, each with their own goals, purposes and questions on feedback that will be required.

After the questionnaires have been returned, the vocational teacher shall understand the eliminating duplicate and classify similar statements, and compile a single composite list of goals within each category of the questionnaire.

Questionnaire 2 should include this composite list of goals with a goal with a rating scale designed to solicit the opinions of respondents as to the importance of the goal statement. Any one of these several rating scales may be used including a two-point scale of 2 and 1, a three-point scale of 3, 2, and 1, a four-point scale of 4, 3, 2, and 1, or a five-point scale of 5, 4, 3, 2, and 1. The high school faculty, the faculty of post-secondary institutions offering vocational and technical education programs, the divisional and locally designed program of individual interests (usually best conducted by a questionnaire), and the state educational cooperation will provide a guide for student interest. The power of the DELPHI method seems to lie in the fact that it creates some of the most important elements of an ideal dialogue. It provides an important anonymous setting where opinions can be expressed in clear terms and considered before any decision of criticism and counter-arguments are set in which the ideas can be modified on the basis of research rather than on prejudice and or a desire to climb on the hardwork.

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show his rating within the summary ratings. This may be accomplished by placing an indicator (either a check mark) above the interval on the rating scale where the response was placed in the summary rating.

Each respondent should be asked to reconsider his rating of each goal statement. For example, if a respondent thinks he may be skimming any ratings after considering the majority opinion of other respondents, he should be encouraged to review his ratings and change them if necessary. Each respondent should be asked to justify his rating of each goal statement.

Questionnaire 2 should provide feedback to respondents on the composite list of goal statements, a summary of the rating of each goal statement, an indication of the majority opinion (if any), a notation to each respondent as to his rating of each goal statement in questionnaire 3, and the minority opinions expressed by respondents who rated goal statements below the majority opinion. The specific arguments of these minority respondents are reported to help the majority opinions.

In many cases where goal statements receive a majority opinion, the majority opinion may be achieved with two or three questionnaire ratings of goal statements.

Questionnaire 2 will also provide opinions and information obtained and utilized in your planning activities. The DELPHI Technique can provide explicit information and knowledge, which group discussion without face-to-face confrontation where vocal discussion may persuade others on the basis of personality rather than on actual facts, as could be expressed in written opinions.

When questionnaire 2 is returned, the list of goal statements should be analyzed by respondent groups and overall considering the goal statements' priority, competency statement and the percentage of respondents who were in the majority opinion, for each goal statement. Goal statements that receive highest percentages and unanimity of opinion may be considered priority goals.

It should be pointed out that the methodology, if not the actual results and feedback depend on how early in the process that a majority opinion is established. If no majority opinions are achieved, goal statements may be achieved with two or three questionnaire ratings of goal statements.

A larger department can offer a wider range of teaching and research needs, therefore, a better chance to meet student needs.

Date Butcher
Vocational Teacher
Benton Central Jr-Sr. High School
Oxford, Indiana

Everyone is familiar with the old saying, "If you want something done, there are better chances that something will be done if you do it yourself." One has to be ever expanding that about three or four heads; but, it is not the case that should be the case for our planning needs. The "Old Teacher." (Adv. of the DELPHI Techniques and Program) is the first of a series of articles from the University of Wyoming. Since 1948, Dr. Ed. Byers, E. S. White and colleagues (1948) have been studying the problem of planning for educational change. The "Old Teacher," by Professor R. D. White (Planning in Education: A Guide for Administrators), The Oneida State University, 1950.

Progress and Change in the Agricultural Industry by Gerald W. Thomas,Dean of Agriculture, Texas Tech University, Lubbock, Tex., W. C. Brown Co., Dubuque, Iowa, 1929.

This book presents valuable and original work on the theme "The Changing of Agriculture." A large amount of material is included in this study. The last chapter of the book deals with the principles of hydraulics as applied to agriculture and farm machinery. There are sections on the increasing importance of the new mechanized equipment in agriculture and the growing need for more knowledge of the technical aspects of the changing agricultural industry. The authors have done an excellent job of explaining the global importance of agriculture and the general overview of the new technology applied to agriculture and the mechanized equipment in agriculture.

The book is a valuable reference for teachers and researchers in the field of agriculture.

The book contains a wealth of material on hydraulics, installation, and maintenance techniques, supply mechanisms, and the technical aspects of the book, which are well presented and well documented. The book is beautifully illustrated with many well-chosen photos and diagrams. The text is well written and easy to follow, making the book a valuable resource for anyone interested in agriculture and the new technology applied to agriculture.

In conclusion, the book "Progress and Change in the Agricultural Industry" by Gerald W. Thomas is a valuable reference for teachers and researchers in the field of agriculture. The book provides an excellent overview of the global importance of agriculture and the general overview of the new technology applied to agriculture and the mechanized equipment in agriculture. The authors have done an excellent job of explaining the global importance of agriculture and the general overview of the new technology applied to agriculture and the mechanized equipment in agriculture.

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EXPANDING AGRIBUSINESS PROGRAMS IN WISCONSIN

F. J. Doering
Consultant, Agriculture Education
Wisconsin Department of Public Instruction

In October, 1967, the Wisconsin Department of Public Instruction appointed a pilot program committee8 in vocational agriculture composed of personnel representing vocational agriculture instructors, the Department of Public Instruction, and the University of Wisconsin at Madison, Platteville, and River Falls. This committee was charged with the responsibility of drafting guidelines, initiating proposals from local high schools, and selecting programs which test a new idea in a realistic setting. Schools were encouraged to be innovative and imaginative in their proposals.

Though we consider basic production agriculture to be the foundation of our program, we are very cognizant of the fact that "agriculture is more than farming." Agribusiness is an industry offering unlimited opportunities for gainful employment and advancement in the business of collecting, processing, and marketing the products of the farmer. More than thirty schools responded with proposals for pilot programs in early 1968. From these thirty proposals, the pilot program committee selected nine programs involving twelve high schools, to operate as a pilot program for a period of three years. A very brief description of each program is as follows:

1. Waterloo—Ornamental Horticulture
2. Veroa—Agriculture Metals Fabrication
3. Cameron—Agriculture Supply, Sales, and Service Occupations
4. Roselle—Agri-Industry in Meat
5. Oshkosh—Agri-business in a large city high school
6. Bismarck—Cooperative Inter-School Vocational Agriculture Program. Would involve Oshkosh and Cedar Grove Schools which had no agriculture program.
7. Bucyrus—Feed Mill Operators
8. Jessaville Craig and Parker—Agri-business in a city school system
9. Jefferson—Independent Study Program in Agribusiness

All pilot schools were visited by the Pilot Program Committee during the second semester of their first year in operation. Visits were made to the schools to discuss problems they are encountering, to serve as a sounding board for any new ideas, and in general to note the progress (or lack of it) in the program. The committee carefully refrained from dictating policy to the schools making it very clear that this pilot program was THEIR program. Studied with the initial program successes, the committee plunged into the writing and selling of the proposals they developed in 1967. Again, we were successful in interesting a number of schools in such proposals from which the Committee selected five programs involving nine high schools:

1. Bloomer—Field Conservation
2. Green Bay East—Agriculture in a City School—No farm students enrolled in the high school
3. Sauk Prairie—Cooperative Education Program in Agribusiness for Educationally Disadvantaged Students
4. Southern Door—Natural Resources
5. Whitehall, Independence, Arcadia, Blair, and Taylor—Meats and Meat Industry Inter-School Program

At this juncture the pilot programs were experiencing varying degrees of success with the majority doing very well. Only two seemed to be heading into extreme difficulties with one of these being our multiple school program. Our evaluation indicated we should explore other areas and in 1970 we again appealed to local schools for proposals in agriculture with special emphasis on the disadvantaged. The Committee approved eight new programs in eight high schools:

1. Denmark and Reedsville—Two Similar Cooperative Education Programs in Food, Seed, Fertilizer, and Agribusiness area. (Disadvantaged)
2. Lake Geneva—Special course in agriculture for students with reading problems
3. Oshkosh—New opportunities in a Rural-Urban Community (NORUC), Cooperative Education Program for Disadvantaged Students
4. Waupaca—Horticulture program for low ability students
5. Rivers—Cooperative Education Program for Disadvantaged in Forestry
6. Antigo—Agriculture Mechanics Program—Hydraulics
7. DeForest—Urban—Industrialized Learning Program Related to Agriculture Sales and Service
8. New Pilot Programs added in 1971 included the following:

1. Franklin—Ornamental Horticulture in a city system. No previous agriculture program in the school
2. Middleton—Agriculture program established after a three year lapse—emphasis in Horticulture
3. Wausau—Food Processing-Canning Industry
4. Bowler—Forestry Occupations (Disadvantaged)
5. Pulaski and Seymour—Agri-Business Cooperative Education Cluster (Disadvantaged)
6. Galena—Eight Week Summer Program for Disadvantaged Students in Forestry—Conservation Science—Spring

We believe this to be more than a very brief statement of each of the pilot programs. As indicated, these programs are experiencing varying degrees of success. It was obvious to the Committee from the very beginning that not all programs would be successful and that some would indeed point out how programs should NOT be started. We would appear at this time that only two have been outright failures with perhaps one or two more on the threshold. Only these programs was an inter-school program and points to some interesting conclusions:

1. The cooperating schools in an inter-school program must have one person charged with responsibility for the program. This person should probably be the local vocational coordinator.
2. A calendar must be written.
3. Transportation programs must be carefully worked out.
4. Student people must be involved. Absolutely vital if one or more of the schools offer no agriculture in their school itself.
5. Administration and Boards of Education must totally support the inter-school program.
6. The agriculture instructor must be given adequate time to conduct and establish the program. Fifteen of these positions are being taught by more than one teacher in both programs.
7. Administrative duties, such as principal, and agriculture duties by the same person are not practical and will result in the failure of the agriculture program.
8. Our observations indicate that a certified vocational agriculture instructor be employed to conduct a pilot program. This is true even in such areas of instruction as conservation and forestry.

While experience is undoubtedly preferred, new teachers can be very successful in new and innovative programs. Perhaps this is because they have not learned all the reasons why something might fail.

Dr. John Thompson, Associate Professor, Department of Agriculture and Life Sciences, University of Wisconsin-Madison, and his graduate assistants have researched the pilot programs in each year of operation. Some very interesting observations have been made to this point:

1. While our regular vocational agriculture programs in Wisconsin attract about 25%-30% non-farm students, the pilot programs have attracted from 65%-70% non-farm.
2. Students enrolled in the pilot program on an elective basis and for exploratory reasons. Only one student had a definite career commitment.
3. Pilot programs have generally been added in schools which showed vocational agriculture enrollments stronger than the growth of the male population of the school.
4. Students without previous vocational experience tended to enroll for exploratory reasons while students with occupations experienced a more definite career objective.
5. Girl enrollment in the pilot programs has increased from 4% to 11% per cent.
6. Farm students make higher grades in the pilot programs than do non-farm students.

It is the feeling of the Pilot Program Committee that the Wisconsin programs are indeed pointing the way for the future of vocational agriculture in this state. There is still much to be learned as we seek additional proposals for the school year of 1970-1971. Our emphasis this year will be on programs involving team teaching, intra-disciplinary programs, relating agriculture

Bloomer students in their pilot program in Field Conservation spend 70% of their time in the outdoor classroom.}

8. The career education model, additional inter-school programs, cooperative education programs in production agriculture, individualized instruction, disadvantaged and handicapped, and any other new or innovative programs a local school may wish to conduct. The pilot programs have been new and exciting. We look forward to the continuation of this program. Our research now must concentrate on determining the effect of pilot programs on the total program of vocational agriculture in Wisconsin.

1. The Agriculture Pilot Program Committee met at the following: (a) St. Joseph, Chippewa—University of Wisconsin-Madison, February 27; (b) Buffalo, Columbia—University of Wisconsin, Madison, April 20; (c) Bloomer, Department of Public Instruction, May 1.
6. Weekly, We Depict the Week, June 1968.
A GUIDE FOR PLANNING ADULT EDUCATION PROGRAMS FOR ONE-TEACHER PROGRAMS

Vocational Agriculture teachers have often wondered about what is "enough" in terms of adult education programs. Many times they have heard about the good jobs being done in other places where all persons interested in production agriculture or agriculturally related businesses have been "beaching down the door" to get into the adult learning activities. Or they have heard of the tremendous numbers enrolled in other places and have felt as if they should be "beaching up" to get their pay checks" because they had been working with a small group of agriculturists. Expectations should be based upon the existing conditions in particular situations rather than upon what others are doing. It is high time that some guidelines be developed to help the teacher determine what "ought to be" done in the adult education component of the total vocational agriculture or vocational agricultural programs.

When we ask the question "What Should One-Teacher Departments Do about Adult Education?" we may need to use some type of criteria rather than to attempt to see the many facets of the situation which may influence what would be appropriate adult programs. We have been using this approach with our land judging and other contests for years in vocational agriculture.

Adult education activities now vary from little or no activities to extensive, effective programs. Many programs are conducted on a relatively scheduled basis. Other activities may be of concern only when technological advances are being made or the situation is one of a competitive business. Instruction often is individualized and not highly structured. Some adult education programs have used the mass media—radio, television, magazines, newspapers as a way to aid their learners. All of these processes may be effective in getting the job done in providing adequate adult education. Several combinations or types of instructional methods will often be needed to provide what "ought to be," depending upon local conditions.

Several conditions should be investigated as a basis for determining the need and type of adult programs for a particular situation. These factors interact to determine the appropriateness of adult education that should be provided through local vocational agriculture or agrisales business departments. The interaction of positive and negative influences such as time for adult education, physical resources, administration, financial support, etc., combine to provide a unique local situation. Although there are other major factors involved, commitment, resources and teacher competency will be used here since they have been identified and being related to effective adult programs through research.

It is suggested that each vocational agriculture or agri- business teacher take an inventory of his local situation in terms of positive or negative strengths of these conditions as a basis for modifying his opinion of what his adult programs should "ought to be."  

Revised by: Harry E. Frank, Assistant Professor, Department of Vocational and Adult Education, Auburn University, Auburn, Alabama.

MANAGING THE TOTAL AGRICULTURAL RESOURCES

In the past teacher studied the production farming of the home farm and the resources of their students to see how these home farms were the laboratory for learning farming. Through experience he developed programs called farming programs. How can the teacher organize and use (manage) the total agricultural resources of the community to support his new training program in agri-business and natural resources education?

First, the teacher must identify all of the agricultural and natural resource businesses, industries, agencies, and organizations in the community. The local agricultural and natural resource industries, farms, organizations in the community. A comprehensive local survey can include such items as: business, agribusiness, producers, goods sold or services rendered, number of employees (full-time and part-time), source of income and demand and part-time and seasonal help, help during the past five years, a record of numbers of employees for the next five years, what is needed in training programs for farmers, employee, and opportunity for placing one or more students for an occupational experience program (based on employer having a good understanding of the potential training units or job opportunities for which they may be indicated on a form such as the following.

RECOMMENDED AGRICULTURAL ACTIVITIES FOR THE VOCATIONAL AGRICULTURE PROGRAM

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1. Opportunities in Agricultural and Natural Resources (advanced level)
2. Orientation to the Vocational Program in Agriculture
3. Selection and Managing for Experience Programs
4. Keeping Records on Experience Programs
5. Organization and Operation of Agricultural Businesses and Industries
6. Agricultural Mathematics
7. Human Relations and Personality Training

By dealing with these units with the entire class, the teacher should secure those learning needed by all students, regardless of the type of agricultural occupations the students would be training for. Perhaps the teacher might devote 50 to 60 percent of the total instructional class time during the year dealing with the group instructional units. And, these should be dealt with at the appropriate time during the year.

The remaining 40 to 50 percent of the class time should be devoted to individual study, during which time the teacher might help the students develop the knowledge and understanding which will be needed to perform the jobs and carry on the activities he will have in carrying out his experience programs at his training site. Where does the teacher go to get help for his students for this individual study—dive as they may be to develop the knowledge and understandings for the many activities they will be engaged in where the students will have their experience programs? Many teachers have developed their own individual student study-guide, based on local needs. Several states have made a start in developing individual student guides. Among these states are Kentucky and Texas. Kentucky has 26 such guides for training teachers on a pilot basis. Reports from 15 teachers in five states is encouraging.

Individual-Study

Teachers of agriculture, as a whole, have not been successful in developing an individual student study. And, have, for the most part, resorted to group instruction. The idea that individual instruction can not be effective, I am saying (in a sense) that teachers must develop for the individual use of students in the classroom based on the jobs and responsibilities each student will have at his training station, divers as this may be. The teacher will need to think through how he will organize his class for individualized learning. These ideas can be drawn from the organization and procedure to follow. And, the student and the teacher must have a common and "an enthusiastic spirit" for the individual study. Experienced teachers offered several student study guides report that a ten-day block of time for individual study is about the maximum the teacher should use before re-

(Concluded on page 21)
Pioneers in Agricultural Education:

HOWARD C. FETTEROLF

Howard C. "Duke" Fetterolf

H. C. Fetterolf, pioneer in agricultural education in Pennsylvania and Missouri, was born in rural Pennsylvania. His early experiences in agricultural education began in the United States, retired September 6, 1957 as Chief of Agricultural Education in the Pennsylvania Department of Public Instruction. His retirement, sixteen days after his seventy-fifth birthday, closed almost half a century of service to education.

"Duke" Fetterolf, as he was known to his host of acquaintances throughout the U.S., was reared on a farm at Millville, Columbia County, and was educated in the public schools in which he later directed the daily life's work. He was a graduate of Millville High School, Bloomsburg State Teachers College, and Pennsylvania State College where he received B.S. and M.S. degrees in Agricultural Education.

His career in agricultural education began in the fall of 1914, when he organized the first vocational school in Pennsylvania. This was at Elders Ridge, Indiana County, and offered three courses: agriculture, home economics, and college preparatory. He was the school's director and because of his success at Elders Ridge, it was invited to enter the Department of Agriculture under the plan of the Pennsylvania's first state supervisor of vocational agriculture.

As part of the program of vocational agriculture, Mr. Fetterolf in 1929 directed the organization of FFA chapters in the Youngstown Public Schools in Pennsylvania. He served as the FFA State Advisor until his retirement. During this period the state reached nearly 200,000 in the rural school systems with 295 FFA chapters. Of the 12,000 vo-ag students enrolled that time, 11,000 held membership in FFA. Mr. Fetterolf had a routine devotion to the FFA organization, a routine in which he made many speeches.

One of Mr. Fetterolf's contributions to agricultural education was his 1942 book "Agricultural Education in the United States," which was a comprehensive summary of American agriculture and its contributions to the economy. This book was used as a standard text in many agricultural education programs and was widely respected for its accuracy and insight.

In recognition of his contributions to agricultural education, Mr. Fetterolf was awarded the Distinguished Service Award by the Pennsylvania Agricultural Education Association in 1955. This award was given to individuals who had made significant contributions to the field of agricultural education.

Mr. Fetterolf was a member of the American Vocational Association and the American Educational Research Association. He was a member of the Pennsylvania State Agricultural Society and the Pennsylvania Farm Bureau. He was also a member of the Pennsylvania State Board of Education and the Pennsylvania State Council on Vocational Education.

Howard C. Fink

James C. Fink


In my 1982 Agricultural Education curriculum research in North Carolina, last year, we decided there was a definite need for a course focusing in the area of ecology or environment. It was also indicated there was a great number of job opportunities in the area of Outdoor Recreation and Applied Ecology. This helped students understand the need for persons employed in these fields. The teacher should be competent in handling the learning activities included in the course, knowledgeable about the jobs available, and informed concerning schools and community resources in a geographical region. The teacher in such a program can serve an important in-service role with other teachers in the district who are starting similar programs.

OBJECTIVES

1. Each demonstration center, at the end of three years, should be able to identify and demonstrate:
   - Types of learning activities appropriate to the geographical area.
   - Kinds of equipment and supplies needed to support given learning activities.
   - Kinds of related work experience opportunities that exist in the geographical area.

PURPOSE

The purpose of this new project is to select eight "Demonstration Schools" in each educational institution in North Carolina, and set up a three-year model program to teach students skills in the areas of outdoor recreation and applied ecology.

North Carolina with its Great Smokey Mountains, which will enable teachers to plan a local program and become competent in coordinating the program in the local school.

- Assist LICA personnel in a data collection effort which will provide information on available resources for developing and implementing educational programs in rural communities for recreational purposes.
- Provide continuous consultant assistance to the eight centers relative to (a) identifying instructional areas, (b) selecting instructional supplies, equipment and materials, (c) utilizing community resources in the programs.

ARTICULATION

Articulation of this program of "Outdoor Recreation and Applied Ecology with K through 12 post secondary institutions will be a strong feature of this program. The plan for such articulation will be as follows:

1. Coordination and cooperation in-service training for teachers of grades K through 6 so they may be able to make the program work for such programs in the world of work. This would include visits to "Demonstration Centers."  (2) Coordination and cooperation in-service training for middle school teachers so they may handle integrated curricula and introduce aspects of the program. (3) Articulation between the Community Colleges and high schools to the extent that will be developed whereby appropriate courses and curriculum will be planned and offered to prepare students for their post secondary training for jobs and occupations in the areas of "Outdoor Recreation and Applied Ecology." This project will be called "Demonstration School" in each Educational District coordinate and cooperate with a designated Community College or Technical Institute in that district for the purpose of this articulation process. (4) Coordination with colleges and universities for students to enroll and continue professional training in appropriate disciplines. This is another example of what we in North Carolina are planning and doing to prepare our students for opportunities in agricultural education more meaningfully and meaningfully in meeting student and community needs.
A competency gap exists when employees perceive one set of competencies, employers perceive another set, and the educators perceive yet another third set of competencies as being required of an employee to satisfactorily perform his job.

Donald E. Elson
Assistant Professor
College of Education
Virginia Polytechnic Institute

...Continued on next page...
We believe we have provided a more vocational approach to teaching crops and soil science.

**The Inverted Schedule**

Keith Carlson
Agribusiness Instructor
Belmond, Iowa

The normal school year (from September through May) is a nightmare for a class in crop production. The course starts at harvest and ends with planting. To make matters worse, 60-70 percent of the typical school year in the Midwest occurs when the ground is frozen. Not exactly ideal conditions for crop experiments, and individual application of classroom practices to the student's occupational experience.

The inverted schedule has four strong advantages:
1. A fresh look is given to the crops and soil class at Belmond, Iowa. Why start in the fall? Why end in the spring? Why not start in the spring and end in the fall?

2. The new schedule is very superior to teaching crops and soils. The old schedule was inverted and worked on application.

3. The adjectives are as follows:
   - **Crop teaching is during the spring.**
   - **Easy to teach on the field.**
   - **Coordination with student projects is a snap.**
   - **Juxtaposes student contract, 60 students.**
   - **Easy to visit field days, trials, etc.**
   - **Emphatic teaching load during adult school classes.**
   - **A naturally to involve dads in student's program.**

Coordination is very important when you invert your schedule. Collect the following information, and develop your program accordingly:

- **Summer Crops—Drivers Training**, **Summer Jobs**, **Vacations**, and **Transportation**

We have scheduled two meetings held prior to the school day, or after school. Two evening meetings were scheduled at which parents were invited to attend. Each student was encouraged to rent land for a cover, soybean, or other crop project.

**Practical class activities were carried out, such as population counts on this soybean field.**

A minimum of conflicts resulted since we held several twilight meetings. By starting about 4-00 p.m. we were able to meet until 8-30 p.m. several evenings. We also held all-day meetings to reduce the number of classes requiring travel arrangements. The class spent little time in the classroom. All of the summer meetings were held on the student's farms, at seed corn farms, and in chemical plots.

Grading of the students was based on a point schedule, so that the students were not graded on a curve. The following schedule was followed:

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Class Schedule</th>
<th>Point Schedule</th>
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<tbody>
<tr>
<td>Sept.</td>
<td>30 hours</td>
<td>60-80 points</td>
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<tr>
<td>Oct.</td>
<td>20 hours</td>
<td>40-60 points</td>
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<td>Nov.</td>
<td>30 hours</td>
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<td>Dec.</td>
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<td>Jan.</td>
<td>30 hours</td>
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<tr>
<td>Feb.</td>
<td>30 hours</td>
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<tr>
<td>March</td>
<td>30 hours</td>
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<td>April</td>
<td>30 hours</td>
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<tr>
<td>May</td>
<td>30 hours</td>
<td>60-80 points</td>
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**What are the advantages of an inverted schedule?**

Arnold Mokma
Vocational Agriculture Instructor
Sparaw, Michigan

Next to learning how to perform an activity is the best way to teach some new projects and ideas.

**What are your plans for the summer?**

Arnold Mokma
Vocational Agriculture Instructor
Sparaw, Michigan

Next to learning how to perform an activity is the best way to learn new projects and ideas.

Organizations and Competitions in the Midwest Dairy Industry


This book grew out of a regional research project, NCID, "All have time to accomplish the other summer duties."

May be the only way you have to evaluate present activities and decide which of them is in order to have a summer class.

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Stories in Pictures

by Richard Douglass

Shown above is part of the group of 22 Ag teachers in Region V (NVATA) who attended the leadership training school held in Athens, Georgia. This photo was taken at the Engineering Center of the American Association for Vocational Instructural Education after the teachers of Alabama, Georgia, Florida, Mississippi, North Carolina, South Carolina, and Tennessee had learned how their teaching materials are assembled. (Photo courtesy of D.P. Whitten, Region V Vice-President.)

1971-72 NVATA EXECUTIVE COMMITTEE: (Back Row — Left to Right) — Vice Presidents: Luther Luth, Region I — Kalamazoo, Michigan; Bill Harrison, Region II — Leesburg, Oklahoma; Francis Murphy, Region III — Madison, South Dakota; Odell Miller, Region IV — Raymond, Ohio; D. E. Whitton, Region V — Centre, Alabama; James Shadle, Region VI — Hayneville, Pennsylvania. (Front Row — Left to Right) Sam Sisson, Treasurer, Coffee, Kansas; Glenn McIlroy, Past President, Pikeville, Kentucky; Howard Bird, President, Southfield, New York; James Wills, Executive Secretary, Lincoln, Nebraska. (Photo by Peter Corrall, Portland, Oregon.)

Antoinette Darby, Student of the Vocational Agricultral School of La Union, Nortaro, Colombia, receiving the trophy she won in the speech contest at the JNF, National Convention, Future Farmers of Columbia. (Photo from Mr. Lutzel, International Programs, Future Farmers Association.)

General Assembly of the Japanese Future Farmer National Convention. Their association will be 25 years old in 1972. (Photo supplied by Hajime Kenjyo, Principal, Tokio Agricultural High School, Tokyo, Japan.)

Agricultural Education

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Number 2

WHO DO YOU INVOLVE IN EVALUATING AND UPDATING YOUR PROGRAM?

Theme — EVALUATION