AGricultural EDucation

Featuring—Teaching Farm Management

Department of
AGRICULTURAL EDUCATION
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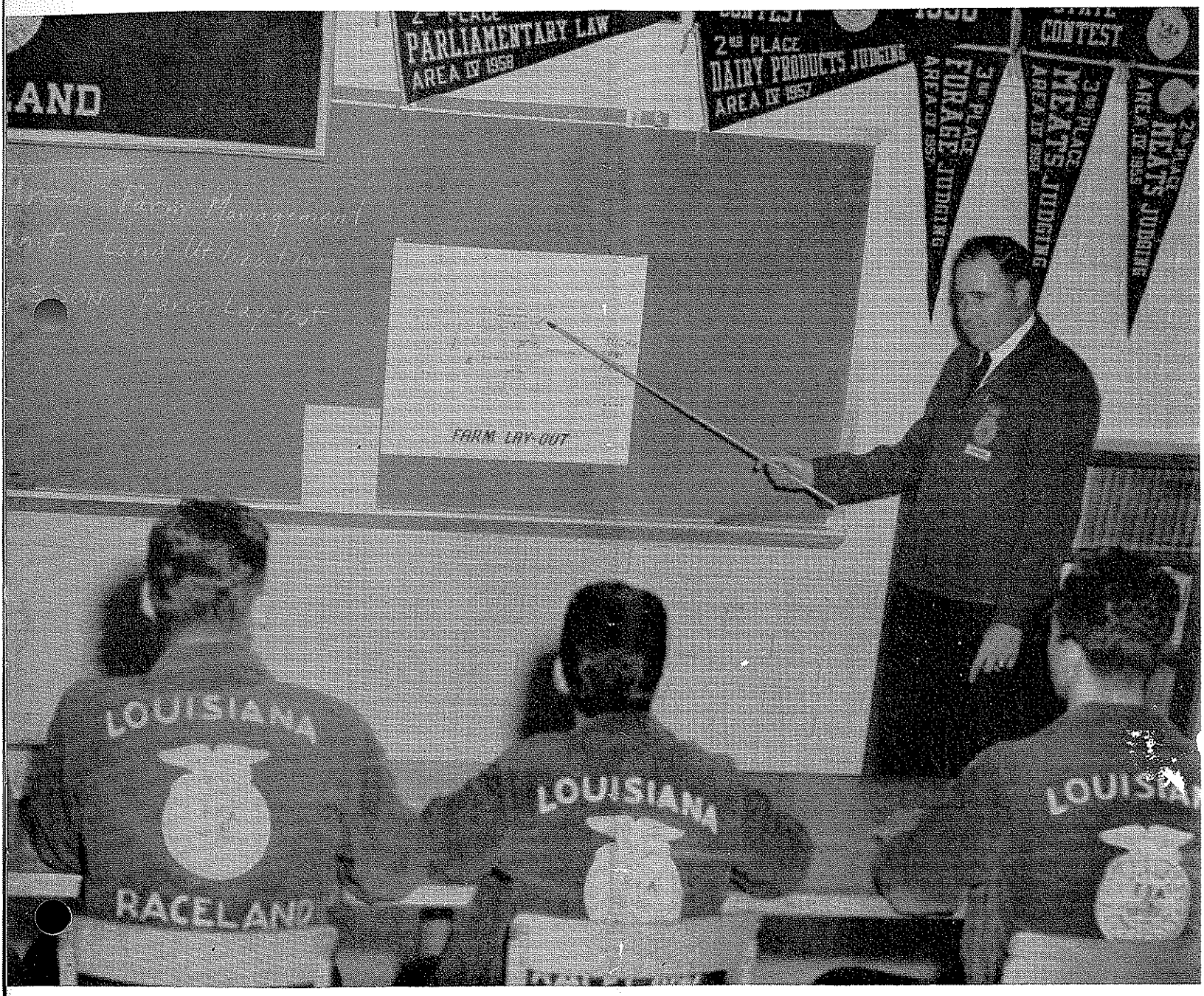

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The AGricultural EDucation Magazine

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IN THIS ISSUE

The Cover

Mr. Harvey Robichaux, Vocational Agriculture Instructor at the Raceland High School points out to members of his senior class the efficiency advantages of giving careful consideration as to the location of fields and farm buildings. This lesson within the Instructional Area of Farm Management was developed recently by the teachers of Louisiana, and is now in State-wide use as a part of the new Course of Study for the State.

Editorials

Guest Editorial

A New Approach to Teaching Farm Management Is Necessary

HAROLD F. DUIS, Program Specialist in Agricultural Education, U.S. Office of Education

Our primary objective in vocational agriculture has been to train for "proficiency in farming." How well have we done? The fact that an abundance of agricultural products are available for an increasing population, produced with less manpower each year is a tribute to the farmers' success. We share in this accomplishment, yet our only concrete evidence is a high school program which has provided preparatory training in farming to less than 50 percent of the today's farmers and an out-of-school program which enrolls only 7 percent of the present farm operators.

This is not enough. The number of students enrolled in itself, is not adequate evidence to justify the vocational agriculture program. We must have concrete evidence of students' economic attainment. Consideration must be given to the fact that high production is not enough to assure a farmer's success. What really counts is his net worth at the end of the year.

American agriculture is going through a rapid transformation. This change will continue and will have a greater impact on agriculture education than ever before. Our program faces continuing adjustment to meet this challenge.

One of the biggest problems confronting today's farmer is how to efficiently organize and use resources available to him. He need no longer farm by chance. Through efficient management, farming has become an exacting science and the desired income can be budgeted ahead of time and almost assured. Farming involves tremendous amounts of decision-making. Right decisions result in a good chance of making money while wrong decisions lead to failure. How then can we assist the farmer in making the right decisions? What changes are needed in teaching vocational agriculture?

The production approach in teaching farmers must give way to the management approach. The "proficiency in farming" objective is good, but it must be realized that a principal ingredient of "proficiency" is the ability to make money. Teaching farm management in vocational agriculture is not new but the approach or method must be. The answer is in teaching the farmer to base all decisions made on his own financial situation. This means using farm business records and analysis of these records for determining his actual situation and possible alternatives. We have too long overlooked records, their analysis and their importance in effective farm management. Farmers must be trained to think in terms of dollars and cents in making decisions. Each decision must be weighed on the "will it pay" scale. Of all groups of persons serving the farmer, who is in better position to assist him in this intimate manner than the teacher of vocational agriculture? Fortunately a few states have recognized this and are developing farm business analysis projects in vocational agriculture.

The role of the teacher of vocational agriculture in farm business anaylsis becomes one of a general practitioner rather than a specialist in subject matter. His function is largely one of assisting the farmer in diagnosing his weaknesses and directing him to one of a great many available sources of technical information. Specialists may be called in to classes or special instructors may be employed to teach the particular topics where the teacher lacks competence or lacks the time. Individual instruction is essential in this type of farm management program and will require an intensification of on-farm visits. The program involves the farmer and his wife in a serious study of the farm operation.

The future success of vocational agriculture in my opinion lies in our effectiveness in teaching farm management through the business analysis approach. Farmers need this type of instruction. With 60 percent of our farms having sales of less than *$5000* annually this becomes readily obvious. Further, since 70 cents of each dollar of gross farm incomes goes for costs, the controlling of these costs in a large measure determines the farmer's profit.

The axiom "the business that pays, is the business that stays" applies to farming as to any other business. The profit motive in farming has become as important as in any other business. This is natural and is the basis of our free enterprise system. The family farm operates on this system. If farming is to remain in the hands of farmers, then the family farm must have better management than it has had in the past. The penalty for inferior management of a farm is severe.

The farm management approach in teaching, based on actual farm records and analysis makes available some of the best teaching material we have ever had. Farmers and prospective farmers need this kind of education. Furthermore, through annual summaries of farmers' records, we will have useful data for evaluating and publicizing our accomplishments. □

Teaching Farm Management This Year

The teaching which was done in farm management last year, or any previous year, won't be good enough for our high school students, our young farmers or our adult farmers this year. We will be working with new individuals facing new decisions and with higher stakes for success or failure. Fortunately we will be dealing with well known principles of economics and education. This issue contains articles which should help agricultural educators in replanning this important aspect of their teaching—Editor. □

LETTERS

Sir:

The article from the editor's desk "Our Role in Improving Vocational Education" is a challenge to every one of us engaged in vocational education and especially those concerned with vocational agriculture. It looks as though we are now having an open season for those out gunning for vocational agriculture. Such seasons come in cycles. Every feature writer is always on the lookout for grist from which to write an article to catch the reader's fancy. At present vocational agriculture seems to make good grist.

Yes, we need to increase emphasis in some other fields of vocational education but let us not do it at the expense of one of the vocational sections which has been eminently successful with its all-day program. The Future Farmer organization has given vocational agriculture a strong appeal with rural youth. We need to build strong youth organizations with some of the other sections in their day programs. As the article in "Agricultural Education" indicated, we are still not meeting the training needs for the broad field of agriculture.

I do not believe thinking American citizens are ready to bite one of the hands that feeds them—vocational agriculture. It has done a tremendous job in contributing to agricultural efficiency, and will continue to do so. If America doesn't appreciate it—Mr. Khrushchev does—because nearly fifty per cent of Russia's productive workers are still needed on farms to meet the Soviet Union's food and fiber needs. This worries Khrushchev!

On the other hand, a little criticism such as we are getting may cause us to ask ourselves such questions as these:

1. Are we getting the right boys in high school vocational agriculture classes?
2. How long is it going to take us to get some real honest-to-goodness vocational programs in off-farm agricultural occupations on an on-going basis and in substantial numbers? Time is running out on talk!
3. Our Young Farmer programs for the country at large are still continuing at snail pace. Why so?

And lest we get too concerned: In the words of the old cliche—"It's good for every dog to have a few fleas—they keep his mind off from being a dog."

Mark Nichols, State Director
Vocational Education
223 State Capitol
Salt Lake City, Utah

Sir:

I prefer the name: The Agricultural Education Magazine.

In addition to the reasons given by Marvin G. Linson, Director, Agricultural Education, Denver, Colorado, in the June 1963 issue of the Magazine, I would mention the following:

1. The *Journal* of the American Association of Teacher Educators in Agriculture has been established, and is a journal in our field. Another "Journal" could be confusing.
2. Teachers of agriculture have experiences and ideas which other teachers, teacher educators and supervisors should know about. The Agricultural Education Magazine is more likely to meet this need than would "The Journal of Agricultural Education."
3. I agree with James T. Horner, Teacher Education, Lincoln, Nebraska, that The Agricultural Education Magazine continues to improve. I do not agree, however, that: "Journal" has connotations much more nearly commensurate with the quality of editorship and authorship represented.
4. There is no reason that "high quality editorship and authorship" should apply any more to a "Journal" than to a "Magazine." Although different, the quality of one can be just as high as the quality of the other.
5. The additional flexibility provided by the "Magazine" is needed in our profession.
6. Most, if not all, of Dr. Horner's thoughts can be met by the *Journal* of the AATEA. If the "Journal" we have now needs (a) to be published more often, (b) to include pictures as well as typed material and (c) to achieve additional prestige—this can be accomplished. It can meet the need of those "encompassed with the 'publish or perish' philosophy."

The North Atlantic Regional Conference made no decision concerning the name change at its April 1963 meeting. The matter was presented at one of the general sessions, but a number of those in attendance wanted to wait and see what Dr. James T. Horner had to say before committing themselves.

As you have said, "Whether we become a 'Journal' or remain a 'Magazine' is nowhere near as important as how well we serve the entire Agricultural Education Profession." In my opinion, this can best be done by keeping the name we have.

Sincerely yours,
Benton K. Bristol
The Pennsylvania State University

Editors Note: The first vote for the term Magazine came from Dr. Carsie Hammonds of Kentucky—for the term Journal from Byron Forsyth of Arizona. A clear majority for either name has not yet been shown.

Dear Sir:

I heartily endorse Mr. Welton's utilization of what is, perhaps, Vocational Agriculture's strongest "tool"—the FFA—in the good fight to erase the existing "unfavorable image" of today's farmer, and add stature to those engaged in the fields of agriculture.

This organization can prove to be a potent factor in the advancement of agriculture.

I am encouraged by the growing trend to allow interested non-farm boys to enroll in vocational agriculture courses. The "project requirement" obstacle certainly needs to be hurdled in order to permit a broader source from which to draw future agricultural leaders.

Here in the Clovis High School where some forty per cent of our Vo Ag students are non-farm boys, the administrators and instructor have set up a workable three-year Vo Ag program which allows the Ag student ample time for enrollment in all necessary college preparatory courses.

Sincerely yours,
Jim R. Turnbough
Clovis High School, Clovis, N. M.

Sir:

I agree with Allen E. Starosta's editorial "There is a Place for More Science in Vocational Agriculture Teaching." Agricultural facts soon become obsolete while an understanding of principles is of lasting value. Vocational agriculture teaching should state the scientific principle involved and then strive for maximum retention of the principle.

I disagree with Starosta when he says most vocational agriculture teachers have had adequate training to teach scientific principles. Many developments have taken place in recent years. For example, the study of cell make-up konwn as DNA was made possible by the development of the electron microscope. Few vocational agriculture teachers have kept up-to-date in such areas.

Since agriculture is a science and offers so much opportunity to teach scientific principles on a practical basis, more teachers of vocational agriculture should have an opportunity to participate in National Science Foundation Institutes.

John T. Starling
District Supervisor
Columbus, Ohio

Tenure of Teachers

It was reported at the Central Regional Conference in Chicago in March that teacher tenure seemed to be one of the Central Region's most crucial problems. Sixteen per cent of the vocational agriculture teachers in the region have 20 or more years of teaching experience. However, 34.7 per cent of the vocational agriculture teachers have had less than five years of teaching experience. In other words, over one third of all vo-ag teachers in the central region have been teaching less than five years.

Nine of the thirteen central region states have indicated a definite shortage of vocational agriculture teachers for the 1963-64 school year. The following states anticipated a shortage in the number of graduates needed: Illinois, Minnesota, Missouri, Kansas, North Dakota, Indiana, Kentucky, Nebraska, Ohio and Michigan. South Dakota and Wisconsin anticipated a slight surplus of replacements. □

Evolving Patterns of Farm Management Teaching

LEON W. BOUCHER and FLOYD G. McCORMICK, Teacher Education,
The Ohio State University

A review of fifteen state programs from the four vocational agricultural regions reveals varied approaches to the organizational pattern of farm management instruction. A brief explanation of three patterns which were identified follows:

Farm Business Planning involves the young farmer, and sometimes his wife, in a sequence of instructional meetings pertaining to their individual farm operation. This instruction includes budgetary controls and pursues the decision making process. This approach gives the farmer and his wife a picture of the potential of their farm operation, providing for more control of the business. Another characteristic of this approach is that an understanding of alternatives and interrelations of the total farm business is provided. Farm business planning generally starts at the level of the farmer's understanding, using his production and inventory figures and progresses by the inductive approach to the decision making. A later analysis of these decisions leads to understanding of farm management principles.

Ohio, Maryland and Vermont have programs which are representative of the farm business planning approach.

Farm Business Analysis generally implies a series of instructional meetings using farm accounts as a basis for analysis. From the analysis of farm records, farm management principles are derived and used in planning future changes in the farm operation. The teaching program implies considerable on-farm instruction because of the personal feeling of sharing one's accounts with others. The teacher must secure the confidence and cooperation of the farmer in order to help him apply management principles to his situation. Generally a small enrollment of young and/or adult farmers is necessary because of the individuality and intensiveness of instruction. Minnesota, Colorado, and New York have programs which best typify the farm business analysis approach.

Teaching Economic Principles is still another approach in which a series of meetings based upon certain basic farm management principles taught *deductively*. The series generally is of short duration and the principles taught may not be applicable to all farm situations. The academic approach may be dominant at the expense of application. The class size is usually larger than in either of the preceding two approaches as individual follow-up is not likely to be as intensive. Texas, Tennessee and Virginia tend to favor this approach in teaching Farm Management.

Who Is Being Served by Farm Management Instruction?

From a review of state farm management programs, it is evident that farm management instruction is being emphasized with young farmer programs. The recent North Atlantic regional workshop at Cornell devoted considerable emphasis to teaching young farmers. Generally, young farmers are in the actual process of growing into the business of farming and their economic situation is quite unstable. They seem to be motivated by the proposition of being helped to get a better hold of "the purse strings of their business."

Adult farmers who are well established in farming and whose economic condition is more stable appear to be less interested in farm management. This group, generally, has a higher economic position which could account for their apparent lack of interest.

The North Central Farm Management Extension Committee, in their publication, "Management Programs for Youth," indicate that the teaching of basic farm management principles through the inductive method has a place in educational programs. Pilot programs on the use of "biological principles" for teaching other basic agriculture concepts are presently being conducted in California and Ohio. It seems logical to assume that increased emphasis and attention will be given to teaching basic economic principles in the future.

How Are Farm Management Instructional Programs Organized and Conducted?

A well-planned instructional program in farm management should provide for more year-round instruction, more meaningful and purposeful on-farm instruction for both husbands and wives than conventional adult programs. The number of meetings, in general, vary from state to state with from ten to fifteen with the exceptions of the Texas program which teaches farm management principles in five meetings and the Minnesota program which uses a one to three year program. Programs are usually initiated during the fall months and meet weekly until the beginning of the new record year, then, monthly meetings are held for the remainder of the year. Many states are developing teaching materials and substituting farm management type programs for the traditional adult farmer short course.

Ohio teachers of vocational agriculture have found that the best method of developing initial interest on the part of the farmer was with personal contacts during the recruitment stage. During this time, the teacher has the opportunity to fully explain all the ramifications of the program. Later, more individualized on-farm instruction will materialize because the enrollee and the teacher can discuss the farmer's personal problems and needs relative to planning a more efficient farm business.

There is some disagreement as to how many participants should be enrolled in farm management programs. In light of the three different approaches to the organizational pattern of instruction, farm management programs tend to serve fewer people. It appears that the type and intensity of the program determines, to a large extent, the number to be enrolled.

Vocational agricultural teachers who have conducted farm management programs feel more visits are needed to the enrollees and more time per visit is required. This fact could account for the smaller number of farmers served by these programs.

What Helps Are Available?

Most vocational agriculture teachers will not possess all the competencies necessary for planning and conducting a farm management program. Most teachers must resort to individuals and/or agencies for assistance with the program. Evidence gathered in Ohio indicates that teachers have experienced favorable results when resource people are involved in this type of farm management program.

Assistance for participants in farm management programs may be secured from: (1) farm record keeping services; (2) farm business analysis services; (3) income tax services; (4) professional farm management services; (5) agricultural agencies; (6) industry personnel; and (7) college agricultural economics departments.

Other examples include farm management specialists serving on state agricultural education staffs such as in Texas. Minnesota has pioneered the use of farm accounting and record analysis services. The Agricultural Economics Department is cooperating with Agricultural Education Department in the development of teaching outlines in New York. Some commercial farm account and record analysis services are also provided by agricultural organizations such as the Farm Bureau.

In addition, several state staffs have developed sample courses of study, resource material of various nature, farm plans, lesson plans and workbooks which are available to their teachers and which should help them implement a program.

Teachers will need pre-service as well as in-service training in record keeping procedures. Close cooperation between agricultural economics and the agricultural education departments seems essential.

What Will Be the Future Direction?

It is obvious that much diversity exists between states relative to farm management planning, organization, promotion, conducting and evaluating. The following are some of the pertinent questions needing consideration:

1. What are the state staffs alternatives in providing in-service training for farm management instruction?
2. Does farm management instruction have a place in the high school program? How should it differ from the adult approach?
3. What priority should be given to high school young farmer or adult farmer groups in farm management instruction?
4. Should state vo-ag staffs include a farm management specialist?
5. Should vocational agriculture provide a farm record analysis service?
6. Should farm management be a one, two or three year program of instruction?
7. Should full-time adult teachers be employed in vocational agriculture to conduct such programs? □

Farm Management for Whom?

CAYCE SCARBOROUGH, Teacher Education, North Carolina State University

Judging by the emphasis being given this subject by national and state leaders, the area of Farm Management has high priority among the many subject areas in agriculture. As one keen observer of trends in agricultural education put it, "Everyone seems to be on the Farm Management bandwagon."

The purpose of this article is to examine this emphasis and to question whether all the effort is reaching the people who make the major decisions in the area of farm management; namely, the farm owner, manager, operator, or other decision maker.

Dangers in Overemphasis

Apparently, one of the major reasons for the increased emphasis on Farm Management is that modern farming is a business operation requiring managerial decisions similar to any other business. This has always been needed, but in this day of large investment and operation costs, decisions are often crucial. There are other reasons which might be advanced justifying high priority of Farm Management in a program of vocational agriculture. However, similar justifications could be made for other areas of agriculture. Agricultural Engineering, for example, because of the necessity of mechanization, also involves crucial decisions and investments of large sums of money. The mechanization problems cut across the entire farming program. So, granted that the area of Farm Management is always important, the question can still be raised if a disproportionate amount of time might be spent here at the expense of other areas, even within the area of Agricultural Economics, such as policy and prices, as well as other areas already mentioned.

One specific issue should be raised about Farm Management as a subject area. It is the judgment of some leaders in agriculture that concentrating on Farm Management in the narrow sense, that is the management of a farm without relating it to wider problems in agriculture and world affairs, may be misleading and likely to be inadequate. Furthermore, in this day of computers and linear programming, some widely used approaches to farm management problems may be lacking in validity.

For Whom?

If we grant that the increased emphasis on Farm Management is justified, how does it fit into a program of vocational agriculture? In short, who learns to be a better farm manager? Or, more specifically, how do the farm managers in the school community profit from the increased understanding and abilities in Farm Management which the teacher of vocational agriculture now possesses?

In spite of some outstanding exceptions by the Agricultural Education leaders in some states, it is suggested that not nearly as much emphasis has been put upon helping provide daylight teaching time for the teacher to work with those who make the major farm management decisions as is given to Farm Management. In short, the teacher does not usually have enough

teaching time scheduled for adults to reach even a small fraction of the farm managers in a school community, and daylight time for supervisory visits is limited.

Teacher Time Required

Farm Management should be for farm managers. Since vocational agriculture is an educational program, this would mean involving the farm managers in a series of learning situations designed to improve their competencies. This cannot be done very well without teaching time devoted to the farm managers, some during the daylight hours on the farm. It would seem, therefore, if the increased emphasis upon Farm Management is to "pay off," that more of the teaching time of the teacher of agriculture must be with these farm managers. Even where specialists are available to do some of the teaching, the teacher of agriculture must have time to do the follow-up needed. He can-

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In-service Education in Farm Management

JULIAN M. CAMPBELL, State Supervisor, Richmond, Virginia

Most teachers of vocational agriculture are genuinely interested in improving the level of farm management teaching, both for high school students and adult groups. Although they are convinced that additional emphasis on farm management is highly desirable, many teachers say that the experience and preparation they have received does not provide them an adequate background in this area. In this connection it is natural for teachers to look to teacher trainers and supervisors in vocational agriculture to provide more in-service training and assistance in farm management.

Use of a Specialist

In order to provide assistance and to comply with requests from the 334 teachers of vocational agriculture in Virginia, a farm management specialist was employed in 1960 at the State level to conduct in-service training programs for teachers and to prepare teaching materials in this area. The individual employed in this position is a graduate in agricultural education and has had several years experience in the field. In order to have adequate background for the work he devoted most of the first year taking advanced courses in farm management and related subjects. He is employed under a cooperative arrangement between the Agricultural Education and Agricultural Economics - Rural Sociology Departments at Virginia Polytechnic Institute and the State Department of Education. His primary responsibility is to provide in-service training for teachers of vocational agriculture throughout the State.

During the current year work in this area is being conducted more or less on a pilot program basis. Specifically, one farm in each of the six supervisory areas in the State has been selected. A thorough study will be made of each farm and a plan will be developed to make the best use of available resources. Training in farm planning is being provided for groups often to twelve teachers by having them follow through the entire procedure and develop a plan for the selected farm. Teachers will meet with the farm management specialist for several sessions before the farm plan is completed. It will also be necessary for the group to visit the farm several times to obtain first hand information concerning the farm situation. Training sessions for the teachers are conducted during afternoon and evening meetings, with the owner of the laboratory farm present.

Teachers Develop Farm Plans

For further application each teacher will select a farm in his community and develop a plan for this farm, using the same procedure. In addition, plans for these first six farms will be developed using an IBM computer. This is being done to demonstrate the effectiveness of farm planning and to provide a solution against which the teachers may check the farm plans they have developed.

Selection of Cooperating Farmers

In selecting the farms to use and in developing the in-service farm management training program the farm management specialist works closely with the local teacher of vocational agriculture and area supervisor. Therefore, it is important that the local teacher of vocational agriculture has an interest in improving farm management and is willing to assist and actively cooperate in organizing and conducting the training program.

The following criteria for selecting farms for teachers to study and plan are suggested:

1. The farm owner should be young (20-35 years of age) and possess suitable resources, (land, labor, capital, and management) for the type of farming being attempted.
2. The farmer must be an active member of a young or adult farmer class.
3. The farm selected should be typical of farming in the area.
4. Also the farmer should be:
   a. Presently keeping records.
   b. A full-time farmer who owns and operates his farm.
   c. Willing to actively cooperate in developing a plan for his farm.
   d. Willing to open his farm records and permit them to be used in conducting the training program.
   e. Willing for groups of teachers to visit his farm periodically.
   f. Willing to look for opportunities to make improvements and take the risk in making changes.

Further Evaluation Needed

Although a complete evaluation of the program is not possible at the present time, we believe that this approach to in-service training for vocational agriculture teachers will make a significant contribution toward improving and emphasizing farm management instruction in vocational agriculture. The farm management specialist will likely play an important role in determining the success of these in-service training programs. □

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In selecting the farms to use and in developing the in-service farm management training program the farm management specialist works closely with the local teacher of vocational agriculture and area supervisor. Therefore, it is important that the local teacher of vocational agriculture has an interest in improving farm management and is willing to assist and actively cooperate in organizing and conducting the training program.

The following criteria for selecting farms for teachers to study and plan are suggested:

1. The farm owner should be young (20-35 years of age) and possess suitable resources, (land, labor, capital, and management) for the type of farming being attempted.
2. The farmer must be an active member of a young or adult farmer class.
3. The farm selected should be typical of farming in the area.
4. Also the farmer should be:
   a. Presently keeping records.
   b. A full-time farmer who owns and operates his farm.
   c. Willing to actively cooperate in developing a plan for his farm.
   d. Willing to open his farm records and permit them to be used in conducting the training program.
   e. Willing for groups of teachers to visit his farm periodically.
   f. Willing to look for opportunities to make improvements and take the risk in making changes.

Further Evaluation Needed

Although a complete evaluation of the program is not possible at the present time, we believe that this approach to in-service training for vocational agriculture teachers will make a significant contribution toward improving and emphasizing farm management instruction in vocational agriculture. The farm management specialist will likely play an important role in determining the success of these in-service training programs. □

A Contest Aids in Teaching Farm Management in Nevada

HOWARD CHRISTENSEN, Teacher Education, In Cooperation with Wayne Burton and Clay Little, Agricultural Economics Department, University of Nevada

We have had one year's experience with a state-wide coordinated effort to improve the instruction in Farm Management. The results were most gratifying based on interest shown by parents, teachers and students. The appraisals of the students who participated were most encouraging. Here are two examples—One student said, "This is the first time we have looked at the farm as a whole. We have studied soil, water, and livestock separately, but this is the first time we have put them all together." Another boy said, "This has brought my whole program in vocational agriculture into focus and I can now see the problems I face in farming as a career."

In late 1961 we realized we must improve our instruction in Farm Management to keep up with the times, as well as make our instruction vocational. Our goal was that each teacher would spend a minimum of 6 to 8 weeks teaching Farm Management in his Agriculture III or IV class each year. Our first step was to attempt to answer this question: "Why do many Vocational Agriculture teachers do a sporadic or partial job in providing organized instruction in this important area of their work?"

Difficulties of Teachers

Below is listed samples of some of the comments made by teachers regarding Farm Management instruction:

Hard to motivate students! Hard to teach!

Cost studies and usable information that applies to the local situations are not available.

Good teaching outlines are not available.

I don't know enough about it to teach it.

Many teachers lack adequate training and preparation in Farm Management; therefore, the instruction in this important area is neglected.

Development of a Contest

We came to these conclusions: If our teachers were to do a better job in teaching Farm Management, we must find ways and means of helping them with student motivation, a course outline, and assist them in obtaining usable cost studies and information that is suitable in the local situation. In an attempt to provide a partial solution, it was decided that a State Farm Management Contest would best provide motivation for high school students and would be a means to an end of upgrading the farm management instruction in the state.

The main features of the State FFA Farm Management Contest were as follows:

1. Students in Agriculture III or IV would make a detailed study of a farm in the local community. It was suggested that 2 or 3 students would work together in developing a farm plan.
2. The students with the best farm plan would submit their plan in advance of the State Contest for review by Agriculture Economics Department at the University.
3. These students would defend their plan before a staff member of the Agriculture Economics Department of the State Contests.
4. Students take a written test on basic principles of Farm Management.

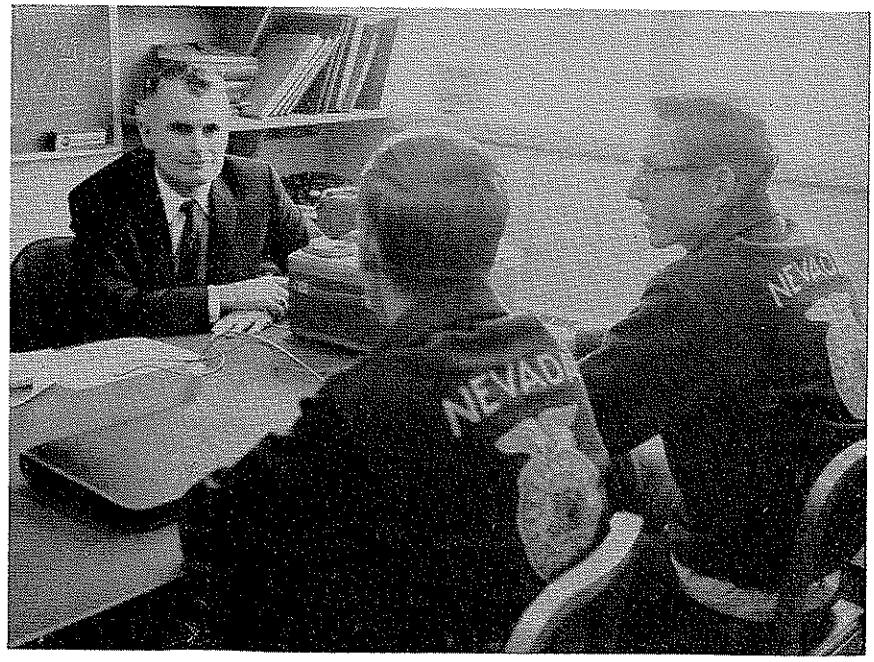
What was the Procedure?

The 1962 Vocational Agriculture Teachers Summer Conference was used for the purpose of developing an outline for teaching farm management as well as for the contest. The staff members of the Agricultural Economics department served as conference leaders.

Objectives in Farm Management

Four objectives were agreed upon and used as a basis for developing the teaching guide and contest application. They were as follows:

1. Encourage students to look at the farm as a complete business unit, or, "the whole farm concept."
2. Encourage students to gain an understanding and appreciation of the economic principles as they apply to a farm business.



Two students defend their farm plan before Professor Little. The students' responses to questions were taped for review by their instructors. This part of the contest proved to be very beneficial because the students were well prepared to discuss their farm plans.

3. To serve as an aid in teaching sound farm management principles which include: production, marketing, financing, and balanced use of resources as well as overall planning.
4. To provide training in the analysis and evaluation of a farm or ranch for the purpose of giving the student experience in the techniques he should follow before making the decision to enter a similar business.

The teaching outline and contest application contained the following:

1. General description of the present operation.
2. Statement of basic principles of Farm Management and the students long time goals.
3. Inventories of resources—Land, Labor Needs, Improvements, Machinery, Equipment, Livestock, Feed.
4. Plans and Budget—Present, as well as future (3 to 5 years) for Crops, Livestock.
5. Estimated receipts and farm income as well as expenses.
6. Summary and analysis with statement of how the plan could be adapted to price, weather, etc.

An attempt was made to get flexibility into the teaching outline and contest so that all chapters of the state could find mutual benefit from the study. Also, optional items were included for those groups who wished to study a particular subject area further than others.

Plans For The Future

This summer we hope to enlarge our Farm Management Program to include adults and young farmers.

We hope to develop, with the cooperation of our teachers, course outlines for adult classes. Also, ways and means of obtaining a good class enrollment. With continued study we hope to be able to improve our day school program in Farm Management.

(Continued on Page 70)

Farm Business Analysis Can Be Taught

R. PAUL MARVIN, Teacher Education, University of Minnesota

There is no limit to the number of farm managers who could benefit from instruction in farm business analysis. Present educators have only reached a small percentage of the total number involved in farming. Few vo-ag instructors complain of having a lack of people to instruct.

The areas of instruction in farm management have been defined for many years. With local area differences the ag instructor can reach no terminal point in instructional materials available. However, *farm business* analysis becomes more critical as we continue in our *"modern problem area"* of farming.

If we can outline who to teach and what to teach them the area needing attention of time and effort is how to reach these people, stimulate, and instruct them so they will delve into a farm business analysis.

Today's advanced agriculture calls for decisions which would have been of little concern to our predecessors. The farmer must rely on information about his farm to make these decisions. He must be aware of the principles of economics which will guide him in his decisions. These principles, however, must be in terms that he can understand and apply in his farming practices.

A Test on Economic Principles

Hal Routhe of the extension staff of the University of Minnesota has devised a series of questions that illustrate this point.

Section I—Economic Principles

T F 1. When a farmer does not get maximum yields on his farm he hurts his income.
— —

T F 2. A farmer should try to get the lowest cost of production per unit (acre, cow) in order to to get maximum income.
— —

T F 3. More beef can be produced from an acre of corn if it's harvested and fed as whole plant silage. Therefore, beef feeders who grow corn should put up as much silage as possible.
— —

T F 4. According to the following fertilizer results, a farmer who can borrow all the money he needs for fertilizer should put on $20 worth of fertilizer since additional fertilizer reduces crop yields.
— —

T F 5. A crop and livestock farmer with limited capital and credit must try to get the highest return over costs possible in his livestock program in order to maximize income.
— —

Plots	Fertilizer cost per acre	Total crop value	Added returns over check per acre	Return per dollar fertilizer cost
Check	none	$50	—	—
1	$ 4	62	$12	$3.00
2	8	70	20	2.50
3	12	76	26	2.20
4	16	81	31	1.95
5	20	83	33	1.65
6	24	82	32	1.33

The above examples illustrate a method of launching into discussions of principles vital to managing a farm business. By using these questions as points of discussion many of the basic principles of economics can be presented to the farmers in an interesting and challenging way.

A Farm Business Analysis Approach

Instruction in farm management becomes most meaningful when the farmer has his own records to rely on for information. These records are only pencil work until they are analyzed and discussed with the farmer. Every discernible type of farm management instruction can be a direct result of this farm business analysis. As an example let us look at four actual dairy farm records.

What conclusions can we draw from this information? As instructor and farmers analyze these dairy situations, some facts become apparent and a number of questions are raised. The dairy farmer with the highest production may not have the most profitable herd. How does the dairy farmer determine optimum level of feeding? What should be the ratio of grain to forage for optimum production at minimum feed cost? The answers to these and many other questions are going to provide the farmer with a basis for making decisions that will influence the profit from his business.

Per Cow Basis*

	Butter-fat	Commercial feed	Total concen-trate	Feed cost	Return above feed	Return for 100# feed	Feed Cost lb. B.F.
Farm A	473 lb.	1083 lb.	4413 lb.	$213.18	$195.76	$192	45¢
Farm B	424	640	3453	145.12	221.82	238	34¢
Farm C	293	150	1190	86.78	129.71	249	33¢
Farm D	290	425	2243	150.54	101.38	167	52¢

*Adapted from the 1959 analysis reports of individual farms.

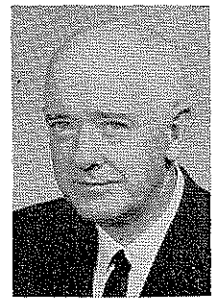
The Teacher's Responsibility

The obvious conclusion that we can draw from the example is that without records we would not be able to obtain this information, without analysis we could not use the information, and without interpretation no decisions to improve the enterprise would be made.

The vo-ag instructor has the very important task of stimulating and initiating the farm family in a complete farm business analysis. Teaching methods and course content are the keys to enthusiastic farmers classes. If course content deals with understandable knowledge, directly applicable to the home farm business, problems of enrollment and regular attendance are very minor. □

Missouri's Farm Management Plan

ROBERT L. HAYWARD and JAMES A. BAILEY, District Supervisors, Missouri



Missouri's plan for teaching farm management was developed partially as a result of requests and needs of the teachers. A sub-district group of twelve teachers of vocational agriculture not only helped develop a trial plan and course outline, they used it on a trial basis for a two-year period. After some changes and corrections, it is now available in a neat well-printed publication entitled, "Farm Management Outline for Classes in Vocational Agriculture."

The plan combines a course of study, directions for the students and teacher, and the necessary forms for evaluating and replanning a total farm operation all in the one publication. Each student, as well as the teacher, receives a copy of the publication.

Farm Management Guide Available

The plan is based on the practical angle of teaching farm management. A farm, either the student's home farm or a case farm, may be used. The case farm, with all students working on it, seems to work best with high school classes. Although a case or pilot farm is used by the class, many of the students also take time to analyze and replan their home farms. Planning and replanning the home farm is recommended with out-of-school groups. The work sheets and guides contained in the publication may be used for adult and young farmer classes as well as high school groups.

The outline is divided into thirty-eight job units consisting of three major divisions. The first fourteen units deal with a study of the farm as it is presently operated including inventory and budget forms and plans for a map drawing of the farmstead and farm. The second fourteen units contain information and forms for replanning the farm. A study job precedes each form used in the replanning section. The last eight units deal with general phases of farm management and economics including farm records, taxes, insurance, and marketing. References and instructions are included with each job unit as a guide to both the students and the instructor. Space is provided in the study jobs for students to write notes and answers. Several field trips are suggested to make the plan most practical.

A number of the references and forms used in the pamphlet were developed for use in Missouri's Balanced Farming Program by the College of Agriculture and the Agricultural Extension Service. The principal reference used in making budgets and establishing standards of costs and production is a balanced farming booklet entitled, "The Farm Business Planning Guide." By using the forms in the Farm Management Outline the student is able to compare the present farming system with his revised system on such factors as crop income over cost, crop production in terms of corn and hay equivalents, labor required in productive man work units, total feed required, capital required for livestock and equipment, livestock income over cost, feed and pasture balance, returns to labor and management, and net cash income available for family living and capital replace-

ments. Forms for evaluating and replanning the soil fertility program and for planning approved practices and improvements are also included.

Practice sheets are available for students to study various combinations of crop and livestock enterprises in order to arrive at the final combination of enterprises which they desire to use in the booklet. The replanned farming program may vary, with each student using his own ideas as to how the farm can return the greatest profit. If the home farm is used, the father is invited to visit the class to hear suggestions on replanning the farm.

Suggested Teaching Time

The Farm Management Outline requires approximately 80 days to complete. Thus, the study of farm management, requires a complete year along with time for farm mechanics and individual farming program study.

The teacher needs to plan well ahead of time in order to have necessary references, records and information pertaining to the case or pilot farm, area scale rulers, aerial farm photos, and soil tests of the fields on the farm.

A Two Year Program

During the past two years, over 90% of the instructors of vocational agriculture participated in workshops on the use of the new farm management outline. An advisory committee consisting of specialists in farm management, staff members and instructors of vocational agriculture has been established to study further needs for instruction in farm management and economics. The Agricultural Education staff at the University of Missouri now includes a specialist in farm management as it relates to instruction in Vocational Agriculture.

CROPPING SYSTEM
(Form 1)

Total Farm Acres_____ Present_____ Alternative_____

Crop (a)	Acres (a) (1)	Yield (2)	Total Production (3)	Price (4)	Total Value (whole dollars) (5)	Corn Equivalent Factor (6)	Corn Equivalent Total (7)	Hay Equivalent(b) Factor (8)	Hay Equivalent(b) Total (9)	Labor: P.M.W.U. Factor (10)	Labor: P.M.W.U. Total (11)
1. COTTON				$	$					8.0	
GRAINS: 2. Soybeans										0.6	
3. Wheat						1/3				0.6	
4. Corn						1.0				1.0	
5. Oats						1/2				0.6	
6. Barley						0.8				0.6	
SILAGES:(b) 7. Row								1/3		1.6	
8. Small Grain								1/3		1.2	
9.								1/3			
HAYS: 10. Alfalfa								1.0		2.4	
11. Mixed Hay								1.0		1.0	
12.								1.0			
ROTATION 13. Past.: (b)								1.0		0.3	
14.								1.0			
15.								1.0			
16.								1.0			
17.								1.0			
18.								1.0			
19. TOTAL TILLABLE A. (c)											
20. Perm. pastures:(b)								1.0		0.1	
21. Improved Permanent pasture								1.0		0.2	
22. Woodlots											
23. Farmstead, etc.											
24. TOTALS											

25. Crop Costs (Till. A x$ (c) per A.	$	
26. Cost of Extra Fertilizer	$	
27. TOTAL CROP COSTS (Add Lines 25 and 26)		
28. CROP INCOME OVER COST (Line 27 from 24) (d)		

(a) Col. 1: When land is double-or triple-cropped, list crops separately. Circle the acres of the second and third crops. But do not add the circled figures for the total on Line 19.

(b) Col. 8-9; Lines 7, 13, 20: Change pasture and silage to Hay Equivalent for pricing and value.

(c) Lines 19 and 25: Estimated crop costs vary from $20 to $30 per acre. This does not include labor, charge for use of capital, or extra fertilizer.

(d) Line 28: Transfer to Form 3 "Summary", Line 17.

The University of Missouri operates a "Mail-In Farm Record Service" which will no doubt receive greater use with out-of-school groups using the Farm Management Outline. Limited experiences with out-of-school classes indicate the need for a two or three-year program to properly cover the material in the outline. Farm records would be given greater emphasis in the second and third years. On-farm instruction and limited class size must be stressed with out-of-school groups using the plan.

The "Farm Management Outline for Classes in Vocational Agriculture" has been widely accepted in Missouri's Departments of Vocational Agriculture and has resulted in more uniform and practical instruction in farm management and economics. □

Providing Teachers Farm Management Materials

EVERETT D. EDINGTON, Teacher Education, Oklahoma State University

One of the major responsibilities of supervisors and teacher educators in agriculture is to provide in-service programs which will help meet these needs. One phase of this program is that of developing and sending to teachers new materials which may be used in their classwork.

This is just as important in the areas of farm management as in the production areas. It is extremely time consuming for teachers to search out and prepare materials for budgeting the many different types of enterprises found in their communities. Research of this type is being carried out in Agricultural Economics Departments in the Agricultural Experiment Stations which would be very valuable to teachers if it could be distributed to them in a usable form.

Materials used in budgeting is many times obsolete even sooner than other types of technical information. The disadvantages of placing such material in a textbook is its limited use for a specific area and the time lapse in getting such material in the hands of those who can use it. We need a method of disseminating this information while it can still be used as a teaching aid.

Plans are now being made at Oklahoma State University for a joint project between the Agricultural Education Department and the Agricultural Economics Department to develop materials which will be helpful to teachers of vocational agriculture in teaching farm management. This will be primarily information to be used in the budgetary analysis approach. The original publication will be of a loose-leaf type so that as material is obsolete it can be replaced with new material. The Agricultural Economics Department has a research program in operation to develop budgets for different enterprises in the state. □

production with different budgets developed for fall or spring calving or for creep feeding or noncreep feeding operations.

The following is an example of a budget which has been developed.

In-service training classes are being held with teacher groups throughout the state to acquaint them with the budget materials and their use. As each of the sheets become obsolete they can be replaced by new budgets which have been developed.

A few other states have a program such as this in action but because of varied conditions each should work out budgets for their own situation.

This program should enable the teachers to keep up-to-date information to use in teaching farm management. The teachers will be urged to use this material to supplement local estimated expenses and receipts and not to replace them.

The key person in any educational program is the teacher. He must understand what is involved before it can be successful. The prepared budgets could be useful in preparing farming program plans for all levels of students in vocational agriculture however this type of instruction will probably be more valuable for advanced high school students and young adult farmers. A complete semester unit on budgetary analysis is an excellent summary of their high school studies in vocational agriculture. This gives the teacher the opportunity to show the students the relationship of all phases of agriculture which have been studied the first three and one-half years and how they fit into the total farm business. Here he brings out the concept that limited resources should be put to use where they will produce the most efficient returns. This approach will give the young men about to become farm operators a complete picture of the farm business and those entering other agricultural occupations a better understanding of the management aspects of the business of farming.

Estimated Production Requirements and Income for Beef Cow Herd (25-Cow Unit); Calves Born November 1; Not Creep Fed; Winter Ration of Cottonseed Cake and Range; Selling Good-Choice Feeder Calves July 20. [1]

Livestock Investment

Item	Head	Animal Units	Value Per Head	Total Value
Brood cows	25	25	$160.00	$4,000.00
Bulls	1	1	300.00	300.00
Heifers more than 1 year	4	2	125.00	500.00
Calves weaned	21	-	--	--
Total	51	28		$4,800.00

Production

Item	Head	Weight	Price	Value Per Head	Total Value
Cull cows	3	987 lbs.	$15.40	$152.00	$ 456.00
Heifer calves	7	450 lbs.	23.60	106.20	743.40
Steer calves	10	490	25.60	125.44	1,254.40
Total Receipts					$2,453.80

Input

Item	Unit	Rate	Number	Total	Price	Total Cost
Range	AUM	12.0	28	352.0[3]		
CSC (3 lbs/day)[4]	cwt.	4.40	28	123.2	$ 3.80	$ 468.16
Hay (Praire)	ton	.025	28	.7[2]	18.00	12.60
Minerals	lbs.	30.0	28	840.0	.03	25.20
Vet. and med.	$	3.0	28	84.0		84.00
Bull depreciation	$	35.00	1			35.00
Hauling and Marketing	cwt.			110.1	.50	55.05
Tax[1]		4.30	8.0	34.40		34.40
Total of Specified Costs						$ 714.41

Returns to Land, Labor, Capital, Management and Risk $1,739.39

Labor Requirements (Man hr./Cow)

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
.30	.58	.40	.46	.10	.08	.34	.08	.42	.82	1.10	.72	5.43

[1] Includes tax on livestock only.
[2] This would include hay for temporary bad weather only. Additional hay would be carried as a reserve.
[3] Includes 16 AUM for calves.
[4] Experimental evidence suggests that additional feed would be required by the growing replacement animals.

[1] Barr, Schultz, Plaxico, and Nelson. "Beef Cattle Systems and Range Improvement Alternatives: Estimated Production, Income, and Costs". Processed Series P-358, September 1960. Experiment Station, Oklahoma State University, Stillwater, Oklahoma.

Materials provided in this type of booklet will be excellent for use with young and adult farmer classes where instruction in management and decision making is one of their greatest needs.

The booklet will probably have its greatest value for teachers in providing material for individual on-farm instruction for members of their adult and young farmer classes who need to make changes in their farm businesses. Here the teacher will have actual expenses and receipts for similar types of enterprises which will give the farmers a fairly accurate estimate of the results of any changes which he may plan to make. This material will be a great aid in helping each teacher to upgrade his adult and young farmer instruction. □

Organizing the High School Curriculum Around Farm Business Management

GERALD R. FULLER, Teacher Education, University of Illinois

Recently, there has been much emphasis placed on the teaching of farm business management to out-of-school young and adult farmers but little attention has been given to the improvement of farm business management instruction in the present high school programs. It is time that farm business management, rather than production and mechanics, be recognized as the central theme around which nearly all high school vocational agriculture instruction should be developed.

The farmer, off-farm agricultural worker, and agricultural leader of the future must know more than just how to raise livestock, grow crops, or operate and maintain farm machinery. These people must also know how such technical knowledge and ability can be organized for the most efficient operation of a farm business. As you look at farmers today it is often possible to identify individuals who possess about the same amount of technical "know how," but the farmer who is able to best understand and apply sound farm business management decisions to his individual farm business is the most successful farmer.

Management Factors

Farm business management can be defined as, "The ability to organize and operate a farm business to provide high continuous profits consistent with family welfare." The success of a farm business is usually measured in terms of financial success. Farmers are in business to make money and the degree to which they accomplish this goal usually indicates to them how well they are operating their farm. Financial success is the core around which instruction in farm business management should be developed.

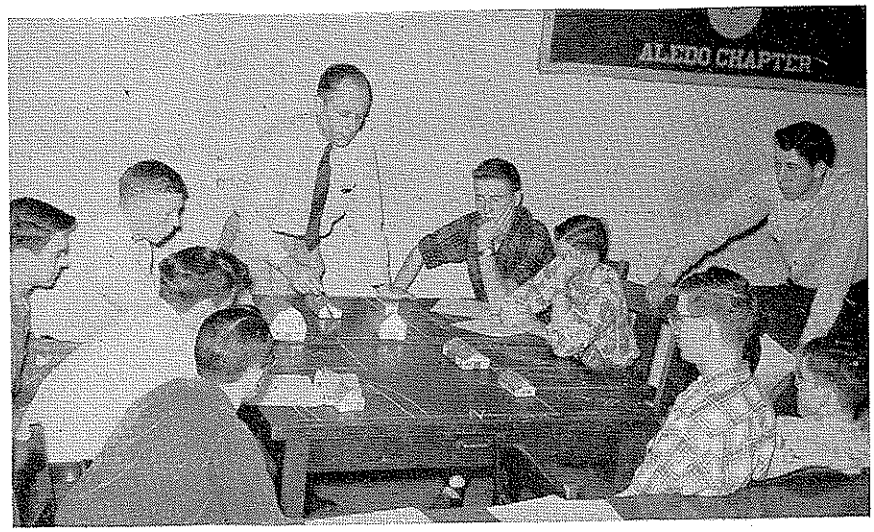
A farmer generally approaches the problem of farm business management by considering:

1. What there is to work with (business resources)
2. How well these resources are being managed (business efficiency)
3. Where the money came from (business receipts)
4. Where the money went (business expenses)
5. How successful the farm business was (financial success)
6. How the farm business can be improved (business analysis)

Using a Farmer's Approach

This "farmer approach" is well adapted to farm business management instruction in high school. The use of this organizational approach provides the basis for the development of appropriate units of instruction in farm business management. This approach also allows for the logical integration of farm production and farm mechanics instruction into the overall theme. For example, when studying the unit "Selecting a Dairy Cow" the student is concerned with one of the resources over which the farmer has considerable control. By improving what he has to work with the farmer may be able to improve the success of his farm business. At this point it is necessary to know how well the farm dairy herd is being managed in regard to selection of animals as well as quality of animals. The students could then determine how these resources (cows) could be improved through better selection. Also, other problems could be identified that needed to be studied; e.g., feeding, health, and the like. Plans could be made to study these problems, through group instruction or individually, during the four year program.

By the time a student has reached the end of his high school program he should have a sound knowledge of the dairy enterprise and how it is related to the operation of the total farm business. A student who has a dairy enterprise as part of his farming program could relate this instruction directly to his own situation while benefiting from the study of a realistic farm enterprise rather than thinking only about a small productive enterprise of his own, or a contest. Students who do not have dairy as part of their farming program would have the opportunity to relate this instruction to their home farm or to a cooperating farm as part of their planned agricultural experience program.



F. A. Schaper, Teacher of Agriculture at Aledo, Illinois, providing instruction in planning for efficient organization of a farmstead, one of the important farm business resources. Problems identified as a result of this instruction would lead into the study of farm mechanics and production units.

Developing the Course Outline

The need exists for the development of a course outline which allows for practical, systematic instruction in farm business management in terms that students can understand and apply to their own situations. Instruction should be planned o provide the students with the basic knowledges and abilities they will need to both manage and operate a farm business. Instruction should begin with the "simple" and continue throughout the four years, each year building upon the previous year's learning. Some of the instruction would be included under the heading of "Farm Business Management." Actually, this would be the core around which nearly all production agriculture and farm mechanics instruction would be organized.

Guiding Principles

The following guiding principles need to be followed when the course outline is developed. Instruction in farm business management should:

1. Contribute to the training of those individuals who plan to farm, intend to enter off-farm agricultural occupations, or plan to attend post high school agricultural education institutions.
2. Be continuous throughout the total vocational agriculture program.
3. Be an integral part of the total vocational agriculture program and related to each phase of production agriculture and farm mechanics.
4. Be organized by years taking into account the readiness, needs, abilities, and opportunities of the in-school students.
5. Provide for the systematic development of knowledges; beginning with the "simple" and progressing to the "complex."
6. Be taught in terms that students can understand and apply to their own situations.
7. Examine first what information is needed to make good farm management decisions, what records provide this information, and finally how these records will be kept.
8. Provide agricultural experiences in the business management of the home farm or cooperating farm as part of the students planned agricultural experience program.
9. Use individual farming program productive enterprises (owned or shared) to provide for the application of the basic knowledges and abilities needed to make and apply sound farm business management decisions.
10. Place emphasis on educational outcomes rather than on providing a service to boys and farmers.

Time to Start

Farm business management can well be the key to nearly all instruction in high school vocational agriculture. Instruction in farm production and farm mechanics should be integrated with the study of the management of the farm business. It is time that future farmers, future off-farm agricultural workers, and future agricultural leaders be taught the fundamentals of farm management. □

Three Farms for Every Vo Ag Graduate

JAMES T. HORNER, Teacher Education, University of Nebraska
DONAVON BENSON, Student in Agricultural Education
University of Nebraska

Will there be a farm available for me when I graduate? Many high school vo ag students are asking this question. There has been too much talk that there is no opportunity for young men to enter farming. The purpose of this article is to present a realistic approach for analyzing opportunities for young men to enter farming during the 1960's and during the 1970's.

An opportunity to enter farming consists of a farm of any size which can be used by someone other than a present farmer to earn all or part of his income.

Two important considerations in determining the availability of farms are (1) the number of farms which are vacated, and (2) the number of farms absorbed by consolidation.

The first consideration is the number of farms which become available for either consolidation or for a place where a young farmer can begin. Three situations which cause farms to be vacated are farmers leaving because of (1) retirement, (2) death, and (3) migration to nonfarm occupations.

Determining the rate of retirement is an important step in finding the availability of farms. Don Kanel of the University of Nebraska and Everett L. Clover at Webster County, Iowa, indicated in different reports that approximately twenty percent of the farm population reaches retirement age of 65 in a ten year period. Much speculation has been offered recently as to influence of social security upon the retirement age of farmers. Many farmers use the social security payments as capital to keep them on the farm. Still others may move off the farm since they no longer are solely dependent upon the money from farming for their existence.

On the second point, death rate, by using life expectancy tables of life insurance companies, Clover, in Iowa, found the death rate for farmers in his area to be five percent for each decade. Carpenter in Missouri, using data from Bureau of Vital Statistics found a similar rate. These figures appear reliable for use in determining the death rate of farmers.

Third, in his study in Iowa, Clover made personal visits to farms and found that about 5.5 percent of the operators at that time anticipated leaving the farm for reasons other than retirement such as migration to off-farm jobs.

Accordingly a total of 30.5 percent of the farmers in 1960 would leave the farm by 1970 and 30.5 percent of the farmers in 1970 would leave the farm by 1980. This percentage is found by totaling the retirement rate (20 percent), the death rate (5 percent), and the migration rate (5.5 percent).

Using these figures the number of farms made available for either consolidation or for farm opportunities in Nebraska are calculated as follows: Using the 1954 census definition of a farm, Nebraska had a total of 91.5 thousand farms in 1959. If 30.5 percent of these farms are vacated there will be 27,908 farms available during the 1960's, similarly if 30.5 percent of the farms in 1970 are vacated there will be 24,033 farms available during the 1970's.

Table I depicts this data.

TABLE I

Farms Available

Source	Percent	Total No. of Farms	Farms Available
		1960-70	
Retirement	20	91,500	4,575
Death	5	91,500	18,300
Migration	5.5	91,500	5,033
		Total Available	27,908
		1970-80	
Retirement	20	78,798	15,759
Death	5	78,798	3,940
Migration	5.5	78,798	4,334
		Total Available	24,033

A look at trends in the past 25 years serves as a guide for estimating the decrease in number of farms due to consolidation. The figures used assume that during this period no drought, depression, inflation, war, or other unusual circumstances will occur.

Census figures show that the number of farms had declined by 42,116 from 1935-1960. Since 1935 the number of farms reported in the decennial census for Nebraska has been declining at varying rates. The rate of decline decreased at an increasing rate from 1935 to 1950. From 1950 to 1960 the rate of decline increased but at a decreasing rate. To arrive at an approximate projected rate of decline in farm numbers the rates of decline for each five year period between 1935 and 1960 were averaged. By this process it was found that about 7.2 percent of the farms are consolidated during each five year period. Figure I illustrates the rate of decline in number of farms.

Using the above figures for the rate of decline in farm numbers, the expected losses of farms during the 1960's and 1970's were calculated as follows: A 7.2 percent decrease from 1960-1965 would reduce the farm number by 6,588 farms, or there would be 84,912 farms in 1965. Another 7.2 percent reduction would leave 78,798 farms in Nebraska in 1970, similar reductions during the 1970's would leave 67,860 farms in 1980. This is a decline of 12,702 farms during the 1960's and 10,938 farms during the 1970's.

To find the number of opportunities the number of farms absorbed by consolidation is subtracted from the number of farms which are vacated. Thus, 27,908 vacated minus 12,702 absorbed leaves 15,206 farming op-

portunities during the 60's, similarly 24,033 vacated minus 10,938 farms absorbed leaves 13,095 farming opportunities during the 1970's, that is 1,520 per year during the 1960's and 1,310 per year during the 1970's.

Clover in Iowa found that about 50 percent of the high school seniors graduating in vocational agriculture stay on the farm.

This figure is supported by several studies which indicate that approximately 50 percent of Nebraska's vo-ag graduates farm. Approximately 1,000 boys per year graduate from vocational agriculture in Nebraska high schools. If 50 percent of these farm, they will require only 500 farms each year. Figure II illustrates this data.

A number of schools in Nebraska do not offer Vocational Agriculture. Many potential young farmers graduating from those schools will be in competition for the farms available. Yet, recognizing that formal education in agriculture is important for one entering the business of farming we conclude that only one-third enough rural males are receiving training in vocational agriculture. Putting it another way, with 1,520 and 1,310 opportunities per year during the 1960's and 1970's respectively, we conclude that there will be approximately three farming opportunities for each farm boy graduating from vo-ag from Nebraska high schools and likely to farm during the 1960's and also during the 1970's. □

FIGURE I
Rate of Decline in Number of Farms

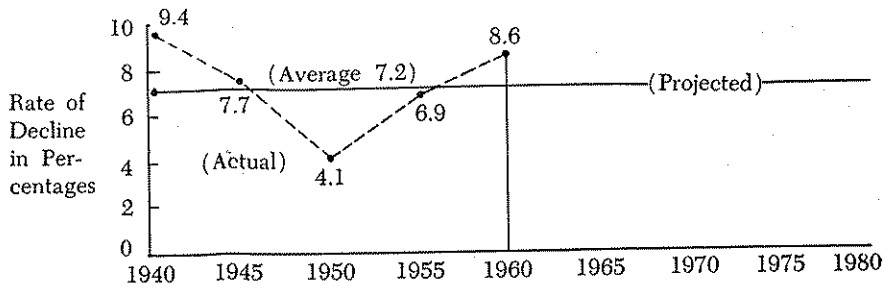
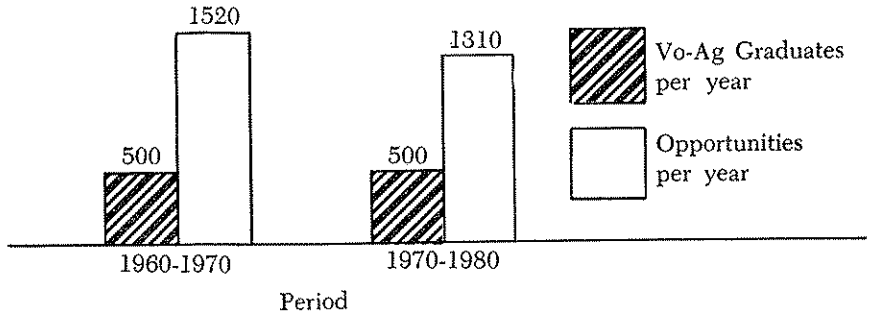


FIGURE II
Estimated Farming Opportunities for Nebraska's Vo-Ag Graduates



Analysis Charts for Studying Farm Efficiency

J. H. HERBST, Vocational Agricultural Service and Agricultural Economics, University of Illinois

In a changing agriculture with increasing capital requirements, record analysis is more important than ever before. Analysis charts can be useful in showing how the farm business is doing when compared with results from other farms. Such charts can serve as a teaching aid for young or adult farmer classes in farm management; they can also be used in high school classes to show how individual enterprises compare with class averages or other standards.

Vocational Agriculture Service, University of Illinois, has made analysis charts available to teachers for the past few years as an aid in analyzing student records. A farm record problem which includes the analysis chart technique to illustrate strong and weak points of a farm business is also available. These items sell for a nominal charge.

Farm Records and What They Show

We will use Farmer Jones' operation as an illustration of the use of analysis charts. His 240-acre hog farm is located in northern Illinois on soils of medium productivity. The operation is classed as a hog farm because at least half of the value produced by the cropping system is fed to hogs.

Although an assumed name is used, the results were based on records from one of more than 5,500 farmers who are members of cooperative record keeping associations in Illinois. The measures shown can also be obtained by other farmers if they pattern their record keeping after the farm record problem mentioned earlier. Teachers holding classes on farm records can give instruction to enable class members to obtain the measures and make the comparisons that will be illustrated.

Figure 1 shows Jones' results compared with averages for other farmers in his group for the year 1961. The group of hog farms serving as a standard are those between 180 and 259 acres in size in northern Illinois of approximately the same soil productivity. The results from those and other farms were reported in the *1961 Summary of Farm Business Records*, Circular 853, College of Agriculture, University of Illinois.

In plotting results on such a chart, the averages for the group of farms are first recorded on the double center line. Production and income items are plotted on the left hand portion of the chart and expense items on the right.

All of the measures are plotted from the double center line. The value of each vertical space is shown at the bottom of the chart. As a rough guide, each space might represent from 5

to 15 percent of the value shown on the center line.

The production and income items are plotted upward from the center line; that is, values higher than average will be above the center line while values lower than average will be below it.

After each item is plotted, the bar representing that item can be shaded or colored from the base line to the point that represents the value for that item.

Expense items are plotted in the opposite direction. If an expense item is higher than average, it will be plotted downward from the average line (center line); the bar representing such an item will not reach the center line. If the cost is less than the average, the value for that item will be above the center line.

Values substantially above the center line will have a high rating and values below it will have a low rating. Items falling close to the center line are rated "average." Arbitrarily, we might rate as "average" all items within 10 percent of the average line.

Locating Strong Points

By studying Figure 1, we can readily "spot" the strong and weak points of the farm business. The overall measure of earnings, labor and management earnings (sometimes called "labor income"), has a high rating. We will rate as "average" the items that are within 10 percent of the average. These items are:

1. Yield of corn.
2. Value of crops per tillable acre.
3. Returns per $100 feed fed to hogs.
4. Pigs weaned per litter.
5. Feed cost per 100 pounds of gain (hogs).

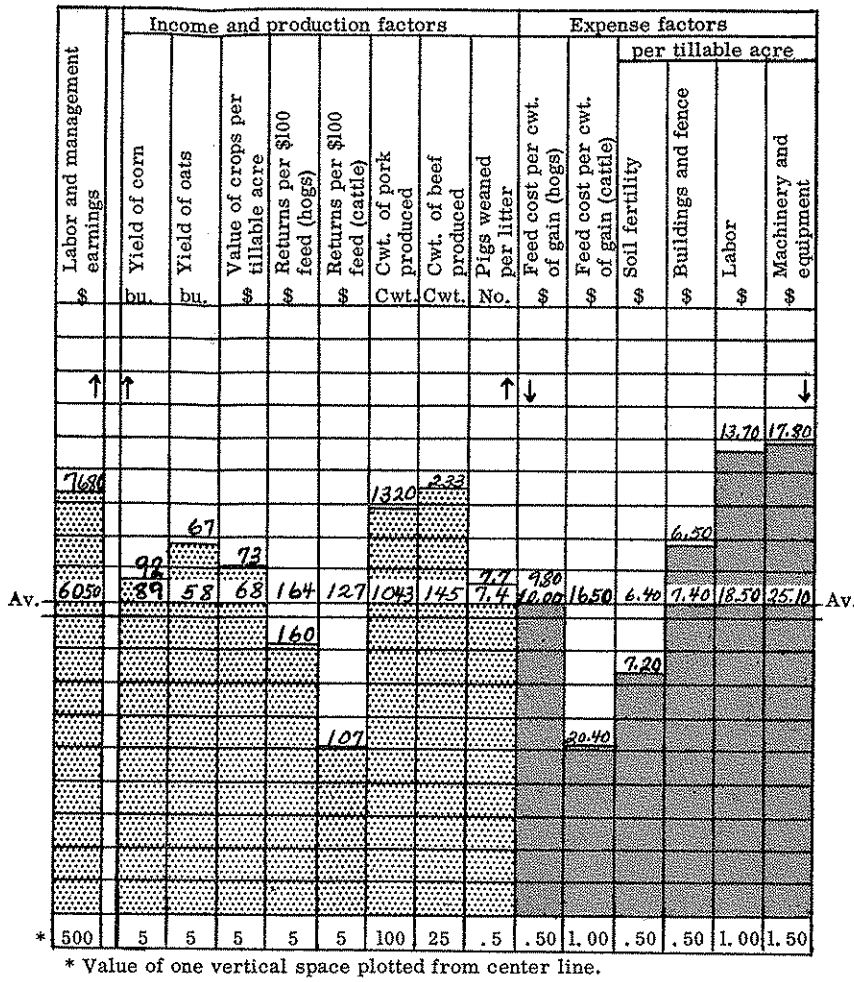
Individual items that have a high rating and can be considered strong points of the business are:

1. Yield of oats.
2. Cwt. of pork produced.
3. Cwt. of beef produced.
4. Building and fence expenses.
5. Labor costs.
6. Machinery and equipment costs.

Weak points in the business that receive a low rating when compared with the averages are:

1. Returns per $100 feed fed to cattle.
2. Feed cost per 100 pounds of gain (cattle).
3. Soil fertility cost.

The higher soil fertility cost on this farm may be justified by higher yields



Analysis Chart Showing Measures of Size and Efficiency on Farmer Jones' 240-acre Hog Farm.

than would otherwise be obtained. However, if the soil fertility cost is unusually high, a farmer might well consider whether he could buy the same plant food elements in a cheaper form, or whether he may possibly be using more fertilizer than economically justified for highest profit.

The results from feeding cattle definitely seem to indicate a weakness on this farm. Returns per $100 feed fed and feed cost per 100 pounds of gain both have a low rating; this suggests that the difficulty is likely to be in the feeding program itself.

Farmer Jones should also consider the steps he might take to improve the items that are rated "average." Perhaps he can increase corn yields and crop value per acre and eventually receive a high rating for these items. The same may be true of measures concerning the hog enterprise.

Record Results of Students' Enterprises

Analysis charts can also be used to chart the results from an enterprise in a student's farming program. Standards for comparison can be obtained by averaging the results from the same enterprise carried on by other students. Measures of size obtained from farm enterprises would be inappropriate but measures of efficiency from such enterprises can often serve as suitable standards. In Illinois, "Standards for Measures of Efficiency," estimated from farmers' results, are sent to teachers.

An analysis chart is available for comparing a student's hog enterprise with averages obtained by class members.

Results should be compared with standards for the same year. Standards for physical measures do not change much from one year to the next; however, standards in terms of dollar values will change with price changes.

The value of analysis charts depends, of course, on a complete and accurate set of records. This is true whether a student's productive enterprise or an entire farm business is studied. If records are incomplete or inaccurate, the use of the charts may point out such shortcomings and serve as a motivation for improvement of record keeping the next year. □

Students or Sheep?

CARLTON WEST, Teacher of Vocational Agriculture, Horseheads, New York

In these times of a dynamic and rapidly changing agriculture, the impact of new ideas and practices is continuous and all but staggering. Teachers of Agriculture seem to be expected to speed up the adoption of these new ways of doing things. The question arises as to what extent we should push for adoption and what methods we should employ.

A dangerous pitfall that we must avoid is the assumption that our success as teachers can be measured directly by the extent to which our students adopt these practices. A hint about this was given in the article by H. M. Hamlin in the August 1961 issue of this magazine. All too often we are expected to, and perhaps do, push for adoption on the basis of "father knows best."

Education is learning and learning only occurs when ideas and concepts in the individual student's mind undergoes some change due to his reasoning out of a problem. Therefore, while the ready acceptance without question of new practices may seem to spell progress, in reality, there is no true learning on the part of the student. Sheep operate this way and sheep are seldom educated. Let's not make sheep out of our pupils.

Decision Making

It should be clearly understood that the primary objective of Agricultural Education has nothing to do with whether or not recommended practices are accepted, but rather deals with developing the ability to make intelligent decisions to either accept or reject on the basis of careful analysis. Any educational benefit and future success for the student lies in his own ability to decide for himself on the basis of his own particular situation.

All students may not make the same decision as to the adoption of a recommended practice and yet all of them may be correct in their decision, based on their own particular situations. As a matter of fact, the rejection of a recommended practice may often be the best measure of the true education of an individual.

Proper learning procedures enables the student, then and henceforth, to arrive at a logical conclusion by himself. If we so train our students, it is logical to expect that in the future years after they leave our classes, they will put into practice more newer recommendations than they would otherwise.

The Learning Process

We must go back to a true concept of learning; that each pupil must analyze his own situation, gather essential facts concerning it, examine carefully the recommendations, determine what effects new practices will have on his own particular setup and then base his decision of acceptance on these factors plus his physical and economic ability to carry out the practice. This procedure will guard against erroneously adopting new practices that may not fit a given student's situation, just because they have been highly recommended.

Blind acceptance of new practices and recommendations is not only not learning, but often times is inefficient or uneconomical. In addition, it represents the formation of a bad and lazy habit. All recommended practices are not based on true research and dispassionate evaluation; some are more matters of opinion or theory of high placed individuals and, as such, may not stand the acid test of intelligent analysis in a given situation.

An example or two might well be in order. Suppose we consider the recommendation that the dairy herd should be increased to a size of more than thirty cows in order to increase the labor income. This may be well and good for some dairymen, but for just as many others it could be a poor recommendation to follow. Some of the reasons against the idea which would come to light following a careful analysis might be: (1) much more rapid progress could usually be achieved by increasing the quality of the herd rather than the size; (2) an increase in the number of cows of a low producing herd could result in a greater loss. This was dramatically expressed by one of my students several years ago in his answer to my question concerning the effect of the size of business on labor income. His honest reply was "the larger the size of business, the more we lose"; (3) many dairy farms cannot get more land to support more cows; (4) more cows might mean hiring more labor which might result in greater labor inefficiency; (5) extra building space and equipment might result in greater burdens and capital inefficiency. These are but a few of the facts that would come to light in an intelligent analysis.

Many times the adoption of one practice, however worthwhile in itself, may not be justified without the adoption of several other practices. As an example, accepting a newer crop variety might well result in even poorer crop yields and quality unless other interlocking practices were adopted at the same time. As a matter of fact, this very thing has happened many times in the past, with the result that many farmers have become skeptical concerning new ideas.

Such mistakes may be avoided by training students in the art of deciding for themselves by careful analysis, rather than blindly accepting advice from experts. Again I say let's not train our boys to be sheep! □

For Whom . . .

(Continued from Page 55)

not do this in his "spare time," after a full-day of teaching boys. It is believed that providing the time for the teaching of Farm Management to those who need it now is much more difficult than helping the teacher develop his ability to teach in this area. But the fact that it is difficult should not keep us from trying to provide the time. To develop the ability to teach Farm Management and then not have the time to teach is "getting the cart before the horse"—oop!—"getting the combine before the tractor." □

Let us all be happy and live within our means, even if we have to borrow money to do it with.—Artemus Ward

Farm Management Education Programs in Minnesota

EDWARD J. O'CONNELL, Area Vo-Ag Coordinator, Area Vocational School
St. Cloud, Minnesota

The first required activity in development of a farm business management education program with the family unit approach used in Minnesota, is to find out all one can about farm business management and how to teach it to interested learners with an attitude toward meeting their vocational needs.

Class group or individual instructional activities are devoted to the development of managerial ability. Management ability is a human resource, usually found in the man and wife or sons, involves a variety of personal characteristics and experiences within a family unit background. The interpretation of human character, personal contact, confidence, freedom of discussion and understanding between the instructor and the family unit is indispensable.

A second basic activity involves the evaluation of the present and prospective agriculture program. These are a few of the factors one may consider in studying the status of a single or multiple teacher program in one or between two nearby schools: the financial scope of agriculture as a tax resource and a retail sales outlet in the trade area of the community; the number of farms, family units, age levels and investment changes in agriculture in the area; the emphasis on education in management economics and resource use on a total farm family approach including enterprise study; the emphasis on day school prospective farmer education or adult education for present farmers.

A third basic activity is the acquiring of actual beginning practical experiences with the management method by the instructor and a few selected farmers in the high school area. This step requires one to handpick three or four farms as instructional stations where the managerial problems and the farmer himself will offer a working example for growth of a future managerial class group. Selected farm families should understand their part in this organizational step as well as the instructor does so there is discussion and development basic to program expansion. Local teachers will likely know farmers and establish criteria for selection of instructional stations.

The activities relative to the development of a farm record keeping system in the "Minnesota Farm Record Book," are rather well known. Group or class instruction on record keeping has been simplified to cover use of records, techniques of keeping records and a certain amount of bookkeeping detail on handling data about physical materials used in the business.

The fifth activity—analysis of farm business records—is simply a system of organizing the physical and dollar type of facts about the business into a report that can be studied and interpreted. There are two systems of analysis used in Minnesota by the area analysis centers. Both systems use the direct comparison method, the same managerial factors of measurement, the same terminology and general plan of reporting.

The research system was developed several years ago by the research staff at the University for use on their farm accounting research projects. Five area analysis centers use the research system. In the research system, the record book is sent to the area center for analysis. Data is copied from the record book to research type work sheets from which the area report is made. The per farm data is written into the "your farm" column of the area report for direct comparison with averages of other groupings. The research work sheets were not particularly developed for individual, day or adult class instructional uses.

Teachers using the instructional analysis with day class instruction in elementary farm management and farm accounting, thus teach present and prospective farmers the same system. Visual teaching aids have been directly from the case analysis by way of transparency projections.

A sixth activity called interpretation is the discussion and study stage between analysis of past results and the determination of future solutions to problems. Interpretation is basic to the instructor's on-farm conferences, to the organization of the course of study content as well as the economics of budgeting procedures. Personal observation, experience, reasoning, comparison, evaluation and knowledge use are terms describing the mental process of interpretation. This is the stage where the instructors advice is developed and considered, but the farmer makes the decision on actions to be taken.

The seventh activity is the establishment of farm management class groups as parts of the departmental program of agriculture education. Some teachers plan one class group representing 10 to 20 farms. Others plan two class groups of 10 to 12 farms per class. Multiple teacher plans may be an extension of numbers or groups. The time demands for any plan must be predetermined in balance with the instructor's total work load per twelve months period. The number of individuals receiving instruction may be greater than the number of farms because pairs of individuals such as man-wife, father-son, partners, creditors or others interested in the program.

The instructor may now enlarge the experience group he started in the third activity level to a ten farm class group. Then, during the second or third year of operation of the first class group, organize a second class group representing 10-12 more farms. We then have a beginning group and a follow-up group progressing through a continuous instructional program. These two class groups may in the future be combined to one advanced group when a beginning group is again considered.

Regulations require ten adult sessions per class group, not per program. Group sessions are additional. Visits are figured at a three hours minimum. The number of farm visits has been from four to ten per farm per year. Although older class members may get three visits, new members may need ten visits. It seems seven visits may be used as a reasonable figure to budget overall time needs. A farmers total instruction time per year would be 25 hours of class, 21 hours visits, 10 group hours or a total of 56 hours. This amount of time seems to be a minimum amount of instruction for a farm business manager in contrast to 180 class hours per year for a high school class member. The farmer in four years would get 224 hours of instruction versus the 720 hours of classwork for a high school boy who expects to farm.

A class group of ten farmers would require 245 hours total time with

25 hours of class, 10 hours of group and 210 visit hours exclusive of the instructor's preparation and personal case study. Two such classes would require 450 to 500 hours in contrast to one fourteen farm-sized class requiring 334 hours instruction with 25 hours class, 15 group and 294 visit hours.

A full time adult instruction time minimum has been based on 2,000 hours annually—1,200 on class, group and visits and 800 on related activities. We can budget adult time and day class time in comparison to the 2,000 hour load minimum. We may also consider the "quarter time" 300 hours plan for a single teacher department with about 45 in three day ag classes, a conference period, no non-ag assignments and afternoon time available for adult work as a flexible workable plan.

The long term schedule for completing the seven activities discussed may take three school terms. Evaluation and prospective plans may be completed by June, 1963, ending of the first school year. Operational and instructional experiences with selected farms could be started in the fall of 1963 during the second school year. Record keeping, analysis and interpretation activities follow one another as an instruction cycle through the farmer's business year to the spring of the second school year of 1963-64. After ending the 1963-64 school year, one may then be ready for full establishment of a farm management education program in his local school. □

Farming Programs or Supervised Practice Programs?

C. S. McLEAREN, Teacher Education, Virginia Polytechnic Institute, Blacksburg

What is the present situation regarding the supervised farming programs of the students enrolled in vocational agriculture at the high school level? Few teachers are really satisfied with the results of their supervised farming programs. Less than 20 per cent of the farming programs would be rated satisfactory to really carry out all the objectives we set up for vocational agriculture; however, we have been doing a good job in vocational agriculture and we have not been getting credit for that job. The supervised farming programs, both large and small, have done good, good that has not been measured. We are in production farming in a rather large way. During 1961-62 in Virginia the 12,600 students enrolled in vocational agriculture tended 38,258 head of livestock and tilled 51,643 acres of crops and raised 900,000 fowl. The total supervised practice income was $4,337,835.

Broader Concept Needed

We need a broad concept of *supervised practice programs* established. The term "supervised farming programs" is not broad enough ot cover our fast moving revolution in agriculture. The supervised farming program has been and is the lifeblood of the program of vocational agriculture and will continue to be the foundation for much of our program. Less than 25 per cent of our students of vocational agriculture end up in production farming, but that cannot be the final gage of the success of what has been done with large or small supervised farming programs. True, we can measure the cash value of such enterprises, but can we measure the aesthetic value, the building of the man caused by ownership of even the smallest enterprises? We do not know that formula. We do not want to abandon supervised farming programs, but rather we want to continue to adapt and adjust those programs to meet our ever changing agriculture, and plus that we need supervised practice programs for those students without facilities for satisfactory programs of supervised farming who desire, need, and can benefit from a course in vocational agriculture.

Types of Supervised Practice

The broad outline of supervised practice programs suggested would be as follows:

Supervised Practice Programs for Students of Vocational Agriculture

1. Supervised farming program.
2. Placement for farm work experience.
3. Agriculture experience on school plots or school farms.
4. Agricultural work experience other than farming.
5. Cooperative program with Distributive Education and Agriculture.
6. Combination program
   A combination of any of the above programs to make a meaningful work experience program.

Taking Off the Wraps

We believe in "learning by doing." Many teachers have a broad concept of supervised practice programs and have been using them not as stepping stones to production farming, but as experiences necessary to enter into agribusiness or other allied agricultural occupations. Frankly, we need to take the wraps off of some of the things we have been doing in the area of supervised practice and let the public know that we do train for more than production agriculture.

In Virginia the major part of our programs are supervised farming programs. We do have some students who have farm placement situations to gain experience. These boys usually live in or near town and have no satisfactory facilities for supervised farming. Some departments have a few boys working in agribusiness situations and in most of the cases they have some enterprises.

The development of desirable programs for each student becomes an individual problem. Probably the major teacher problem is to get the boy to want or desire to really do something and then to help him.

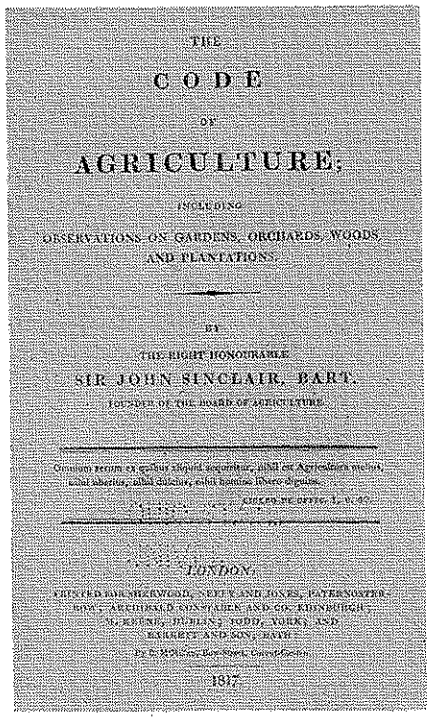
With a broadened concept of supervised practice, the teacher must broaden his sphere of contacts and knowledge of fields in related agriculture in order that proper experiences can be gained by those taking vocational agriculture. We can strengthen vocational agriculture if this problem is faced squarely. There are problems involved, but men working in vocational agriculture know how to solve problems. □

The First Agricultural Textbook

THOMAS K. SHOTWELL, Graduate Student,
Louisiana State University

The appearance of the first text of a single volume designed to encompass the entire field of agriculture came in 1817. It was a landmark of human progress; as a book it is a work of art. Printed in England, circulated through Europe and the United States, it went through five editions before the presses finally became silent.

The Right Honourable Sir John Sinclair, Bart. founded the English Board of Agriculture (the first of its kind) and put together this extraordinary book. So great was the impact of this work that editor John S. Skinner, of the *American Farmer*, proposed to put it into an American edition to include observations on the soils and climate of the United States. The *Code* apparently served as a point of departure for American books in the field.



THE

CODE

OF

AGRICULTURE;

INCLUDING

OBSERVATIONS ON GARDENS, ORCHARDS, WOODS AND PLANTATIONS

BY

THE RIGHT HONOURABLE

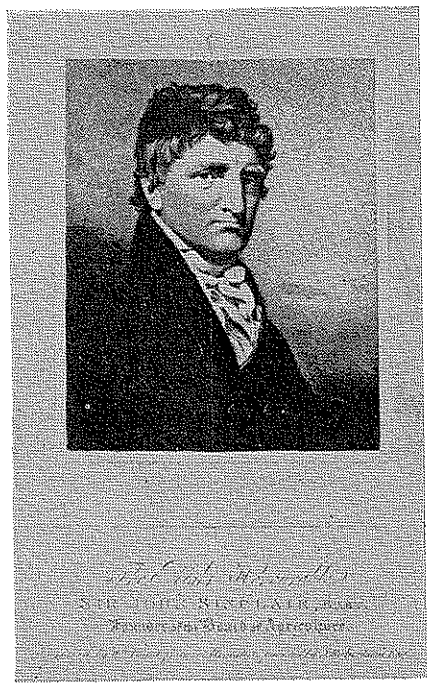
SIR JOHN SINCLAIR, BART.

FOUNDER OF THE BOARD OF AGRICULTURE

LONDON:

1817.

We can feel the tempo of the times in these first lines of the introduction to the first edition: "The art of Agriculture was formerly considered as doubtful and mysterious. Those who practised it, followed the customs of their forefathers, without inquiring into the circumstances, which either led to their adoption, or justified their being adhered to; while such individuals as endeavoured to explain the principles of the art seldom had the advantages of experience. But now, from the numerous improvements which have recently been made, and the great increase of knowledge which has of late years been acquired in that art, the difficulties attending the practice of an improved System of Husbandry, have, in a considerable degree been removed, and its principles have become so much simplified, and so well understood, that the time has at last arrived, when it is possible, with propriety to undertake, the arduous task of drawing up, 'A CODE OF AGRICULTURE.'"



The book was written for farmers by a farmer. Nothing needlessly profound is to be found in this "bible." Penetrating insights into agricultural problems are abundant.

Also we see an engraving of a "Pyramid" of investigations with the statement:

"Inquiries cannot be too extensively, nor too minutely carried on. What occurs to one, may be neglected by another, however able and intelligent. It is the combined information, collected by general and minute inquiries, *that can alone produce facts, on great questions,* fit to be relied on." (Italics in the original.)

The first edition of the *Code* had 492 pages in the body of the work; an appendix of 61 pages; an 18 page index, six pages of "authorities," nine pages of drawings (plates) with 10 pages of explanations.

This book was studied extensively in America. References to it are common in the agricultural literature of the day. It was apparently used as a text in classrooms and undoubtedly helped to stimulate the founding of the first agricultural schools. A glance over the contents of the book (fifth edition) shows it to contain an Advertisement (preface), an Introduction, and five chapters. □

What Is an FFA Boy?

ROBERT SEVERANCE, JR.
Teacher of Vocational Agriculture,
Simpson, Kansas

An FFA boy is a living organism found in the high schools offering vocational agriculture throughout these United States. He is basically a male mortal who, upon occasion, can act like an angel, or a devil, depending upon the situation.

He inhabits vocational agriculture classrooms during school time, the basketball court during afterschool time, his cattle feed lot at chore time, his dad's tractor or farm shop in between time, and the hearts of his parents and vocational agriculture teacher most of the time.

He is proud by nature because he has been taught to excell. He takes pride in his Future Farmers of America chapter, his farming program, his farm trailer or loading chute he built in school shop, and his ability to get along with his friends.

He is an optimist by nature. No matter how hard the task, he is convinced he can do it, given a little time. He has the confidence he could make the honor roll if he really tried, go steady with the best looking gal in his class if he really wanted to and run the home farm better than Dad if he had the opportunity. Yet, he lets nouns, pronouns, and adjectives throw him in English, stubborn calves baffle him, big sisters irritate him, and chickens roosting on his prize loading chute infuriate hm.

FFA boys come in all sizes, some short, some tall, some plump, some built for speed. They like attending a

livestock auction, their FFA spring date party, Dad's new tractor and mountains of home-cooked grub. They dislike wearing a tie, snobbish girls, any form of housework, and cleaning out the farm buildings.

They are eager to attend the National FFA Convention. However, they are doubly eager to return to Mom, Dad, family, and home friends twenty-four hours later. They have a steady hand when driving Dad's self-propelled combine, yet, they are scared stiff when they call up a new girl for a date.

The roar of a diesel tractor, the sound of a self-propelled combine, the bawling of cattle, and the groaning of a hay baler are all music to their ears. The thought of living on a 50 foot lot in the city frightens them as they love the wide open spaces.

The FFA boy knows right from wrong and is disappointed when discipline is not forthcoming from his elders when he has stepped out of line.

These blue-jacketed young agriculture leaders of the future are a breed of mortals unto themselves. They can drive you to distractions with their teen-age antics and yet melt you down when they bounce excitedly into your classroom and exclaim, "Would you come out and see my NEW heifer calf that was born last night?" □

Six Tips on Developing Farming Programs

DALE NESTINGEN
Vocational Agriculture Instructor
Westby, Wisconsin

The farming program is the foundation of a sound vocational agriculture program in the high school. If the vocational agriculture students realizes and appreciates the value of a good farming program early in his vocational agriculture career, preferably as a freshman, he develops a reason for learning, and teaching becomes easier. This article offers six tips for helping students get started with farming programs.

Tip 1: Get acquainted with prospective students. I like to get acquainted with my prospective students when they are in the sixth or seventh grade. I want these prospective students to know that I am interested in them and their problems, so that they will have confidence in me when they enroll in high school. If I can convince the students of my interest, and if they discover their confidence is well placed, then I believe that they will accept my help in developing farming programs.

Tip 2: Get acquainted with the parents. One of the major advantages of long tenure is the opportunity it affords to get acquainted with parents and prospective students, I feel that I can help my students more effectively if I know the parents, determine their interests, learn about their financial conditions, find out the number of children, and obtain other information which will help me in guiding the students in developing their farming programs.

Tip 3: Get acquainted with the home farm. As soon as a boy enrolls as a freshman, I have him make a survey of his home farm. I am especially interested in the size of the farming operation and in the opportunities for developing a farming program. I visit the home farm about two weeks after school starts, confer with the parents, discuss the boy's future, his opportunities, and the characteristics of a good farming program. We try to reach an agreement as to what the boy's farming program should be.

Tip 4: Challenge the student with goals. I use a number of techniques to encourage students to set goals for their farming programs. We conduct tours of established farming programs, invite older students to talk with the freshmen, and explain the requirements of State and American Farmer degrees.

Tip 5: Challenge the student with methods. We try to interest the student in trying out new methods of production, to set production goals and attempt to attain the goals, to compare results with goals, and to check on progress through exhibiting products at shows and fairs.

Tip 6: Challenge the student with awards. We use local awards to stimulate interest in farming programs. One local feed mill offers $75 in cash for the four best farming programs, and another feed mill gives $75 in feed for the four best swine programs. I believe the awards programs stimulate interest and improves the quality of our programs. □

The Spartans do not enquire how many the enemy are, but where they are. —Agis II, 427 B.C.

Wisconsin Teaching Aids Contest

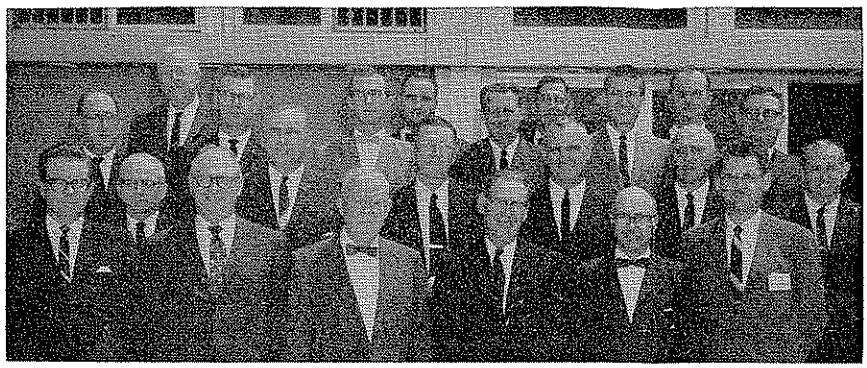
A teaching aids contest, developed in 1959 by the Wisconsin Association of Vocational Agriculture Instructors, is held during the annual summer conference.

Eight divisions have been set up in which entries can be made. They are:

1. Set of ten color slides for instructional use.
2. Set of eleven or more color slides for instructional use.
3. Set of color slides (any number) for use in department and FFA publicity.
4. Black and white photo: Single picture entries taken by Vo-Ag instructor himself, for instruction or publicity. Enlargement preferred.
5. News: A feature news story of current year's activities, suitably mounted.
6. Teaching Aids: "Wide Open" ideas—what have you—with explanation of its use. Reproduction in sample, pictures, mock-ups, demonstration units, short cuts in departmental chores, labor saving devices, departmental records and storage.
7. Summary of yearly program of work as submitted to the school board.
8. Newsletter. □

R. C. S. Sutliff, Chief, Agricultural Education Service in New York is shown presenting a distinguished service plaque to Harry M. McDonald, State Supervisor, Vocational Agriculture in Maryland, during the 1963 North Atlantic Regional Conference in Philadelphia. Mr. McDonald is planning to retire from his position in the near future and the plaque was presented in recognition of his 42 years of service to Farm Youth and Adults in his State. The presentation was made at a dinner in which both Mr. and Mrs. McDonald were honored. The McDonalds plan to travel extensively and Mr. McDonald may conduct graduate courses and workshops in a number of states in the administration and supervision of vocational education including vocational agriculture.

News and Views of the Profession



A three-day Research Coordination Conference on Agricultural Occupations was sponsored by the National Center at Ohio State University in cooperation with the United States Office of Education. The broad purpose of the conference was to facilitate state studies and provide some means of coordination.
Participants pictured above are: (left to right—first row) Duane Nielsen, Specialist in Teacher Training and Research, U. S. Office of Education; George Wiegers, Teacher Educator, Tennessee; E. O. Bolender, Project Assistant, Ohio; Robert Corless, Supervisor, Washington; Charles Langdon, Supervisor, Michigan; Robert E. Taylor, Director, National Center; (second row) Glenn Stevens, Teacher Educator, Pennsylvania; Alton Ice, Executive Secretary, Texas Vocational Agriculture Teachers Association; Carlton Christian, Project Assistant, Ohio; Harold Binkley, Teacher Educator, Kentucky; Everett Lattimer, Supervisor, New York; Joe Clary, Supervisor, North Carolina; (third row) Earl Webb, Teacher Educator, Texas; Warren Griffin, Graduate Student, Missouri; Joseph Bailey, Supervisor, West Virginia; H. T. Lester, Teacher Educator, Georgia; W. R. Bingham, Supervisor, Kentucky; Otto Legg, Teacher Educator, Tennessee; (fourth row) Raymond Clark, Teacher Educator, Michigan; Joe Bail, Teacher Educator, New York; Norman Hoover, Teacher Educator, Pennsylvania; Ray Agan, Teacher Educator, Kansas.

New Appointments at the University of Maryland

Howard P. Addison will join the Department of Agricultural and Extension Education, University of Maryland, as assistant professor on September 1, 1963. Addison is a native of Indiana and a former teacher of vocational agriculture in that state.

He has been on the Purdue University staff for three years, and currently he is an itinerant teacher trainer in agricultural education while completing his doctorate.

Dr. Clodus R. Smith, Associate Professor of Agriculture and Extension Education, University of Maryland, was appointed director of the University's Summer School on March 15, 1963. □

Ward P. Beard Dies

Ward P. Beard died May 20, in Washington, D.C., where he had been a member of the staff of the U. S. Office of Education for more than twenty years.

Mr. Beard was State Supervisor of Agricultural Education in South Dakota and also an Associate Professor of Agricultural Education at the State College, Brookings.

Mr. Beard was long recognized by vocational educators throughout the country as a dedicated leader in behalf of practical education for youth and adult workers. At the national convention of the American Vocational Association in 1962, vocational educators awarded him an Outstanding Service Award. In 1962 he received a Distinguished Service Award from the Department of Health Education and Welfare for his contributions to effective working relationships between the Federal government and the States in the administration and operation of cooperative programs of vocational education. □

Contest . . .

(Continued from Page 57)

The school of "Hard Knocks" will always have a good enrollment, but I wonder what we are doing to limit the enrollment. Instruction, no matter how brilliant, after a young man has lost most of his savings or borrowing potential, in a business venture devoid of profit, is about as valuable as a 7 foot coffin to bury a midget.

Good instruction in farm management can reduce or eliminate the so-called school of "Hard Knocks." □

Professor Kiltz Retires

Professor K. W. Kiltz, a member of the Agricultural Education staff at Purdue University for over thirty-four years, retired in June after more than three decades of service to the Future Farmers of America as State Executive Secretary-Treasurer.

Professor Kiltz's experience as a teacher and educator have included itinerant teacher training, helping teach the undergraduate special methods course, and teaching a graduate course concerning part-time and evening classes in agriculture.

Dr. and Mrs. H. W. Kiltz received Distinguished Service Award from Harold Duis of the U. S. Office of Education at the Central Regional Conference in Chicago.

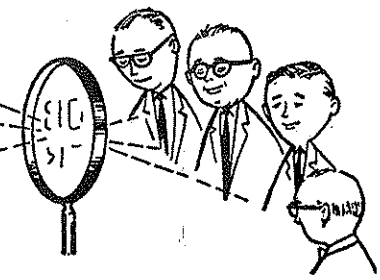
Under his guidance and leadership the State FFA Association has grown from 20 chapters and 273 members to 314 chapters and about 10,000 members this past year. The state convention of the Indiana Association of FFA has grown from 96 to nearly 1800 participants in the annual event.

Professor Kiltz has had a part in introducing new ideas to Indiana FFA members. Among these are the State Officer Tour, State FFA Band, and State FFA Chorus. □

From Former Issues

Thirty Years Ago in The Agricultural Education Magazine, Edmund C. Magill of Virginia, made this prediction, "Decided improvement will be made in producing agricultural instructors who will be good teachers and at the same time sound in their community agriculture. One thing at least is true, a fifth year program will never be instituted until everyone is convinced that the possibilities for improving the four year program have been exhausted. It is also true that the history of professionalizing a specific occupation demanding skill, intelligence and personality, does so largely by increasing the training standards."

BOOK REVIEWS



PLOWMAN'S FOLLY by Edward H. Faulkner, University of Oklahoma Press, Norman, Oklahoma, Ninth Printing, 1963. pp. 156, price $2.95.

Plowman's Folly aroused much comment throughout the country when it was first printed in 1943.

The publishers state that "the volume is being made available again not only because farmers, ranchers, gardeners, and agriculturists demanded it, but also because it details the kind of "revolution" which will aid those searching for the fruits of the earth in the emerging nations.

It is easily read, interesting and reflects a feeling for the importance of land conservation and land use which is essential for the continued success of farming in this country.

Mr. Faulkner is now living in retirement in Ohio. He was formerly a teacher of vocational agriculture, county agent in Ohio and Kentucky and a crop and soil investigator in private employment.

Raymond M. Clark
Michigan State University

FARMING IN THE WEST-IRRIGATED CROP PRODUCTION by Walter E. Shore, published by Fearon Publishers, San Francisco 10, California, 356 pp., 1963.

Twenty-five years of experience as a teacher of vocational agriculture in California has provided Mr. Shore with a clear understanding of the problems and unique features of crop production in the eleven western states. Written appropriately for beginning agriculture classes, the book emphasizes the science of plant production. Mr. Shore gives the student an insight into the uniqueness of western farming by dealing with irrigation, mechanization, diversfication and modernization in addition to the geography, climate, and soils of the west.

In addition, there is a section on Opportunities in Farming and a chapter entitled "Home Project: Your Start in Farming" which attempts to point out the value of supervised farming projects. This book is a basic, useful text.

William Pierce
Michigan State University

THE AGRARIAN MOVEMENT IN ILLINOIS, 1880-1896 by Roy V. Scott, Illinois Studies in Social Sciences: Volume 52, The University of Illinois Press, Urbana, 153 pp., 1962. Price $4.00.

In this book, Roy Scott describes the formation and development of five important farmer organizations. He shows how economic conditions, poor soil, and an uncontrolled transportation system served as stimuli to spur the development of farmer organizations.

Teachers and others should know about the lessons farmer organizations learned during the late 1800's as they attempted to adjust to a changing economy and a changing social system. Students who aspire to become the agriculture leaders of the future should be able to take advantage of what has been learned in the past. While this book is obviously not intended as a high school vocational agriculture reference, it does have a place on the reading lists of agriculture teachers, farm leaders, and students of agricultural history.

Professor Scott is a member of the staff, Department of History, Mississippi State College.

Paul E. Hemp
Agricultural Education
University of Illinois

NSF Soil Science Institute at the University of Wisconsin

The University of Wisconsin was selected by the National Science Foundation to offer two institutes this past summer in the soil science for high school teachers of agriculture who also taught at least one course in science. The purpose of these institutes was to continue the professional improvement of these teachers in the sciences. □

N.V.A.T.A. News

Wenroy Smith
President, NVATA

NVATA NEWS

The 1963 NVATA Convention is scheduled to be held in Atlantic City, New Jersey, December 7-13 as a part of the AVA Convention which gets underway December 9. The first general NVATA session will be called to order by Wenroy Smith, president at 10:00 A.M. on Saturday, December 7.

The Haddon Hall and Chalfonte Hotels, which are located side by side, will be the headquarters hotels. A reservation form can be found on page 7 of the May AVA Journal. The form can also be found in the September issue.

Many of the NVATA meetings and activities have been planned for Saturday and Sunday so that members within driving distance who cannot attend the entire convention can attend over the weekend. Members of NVATA in the Northeast part of the country are urged to take advantage of this opportunity as it will be at least 5 years before another national convention is held in that area.

Following is the schedule for future conventions: Minneapolis—1964, Miami—1965, Denver—1966, and Cleveland—1967.

* * * * *

The NVATA will again sponsor two "coffee hours" at the National FFA Convention. One will be for Vo-Ed trainees and the other for teachers of vocational agriculture. Dates and times will be announced later. The national president, the executive secretary and several other national officers plan to attend the convention.

* * * * *

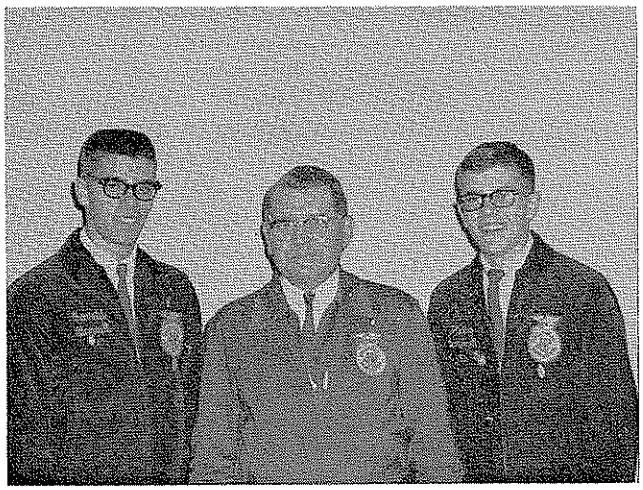
Thirty-eight affiliated associations, had 100% NVATA membership in 1962-63. Two Regions, III and V, were 100%. Region III has 6 associations with 1204 members and Region V has 15 associations and 2844 members.

The total membership (10,116) for 1962-63 nearly equaled the all-time high of 10,120 attained in 1959-60. Compared to 1961-62, the 1962-63 NVATA active membership increased by 116, active life membership by 4 and student membership by 143.

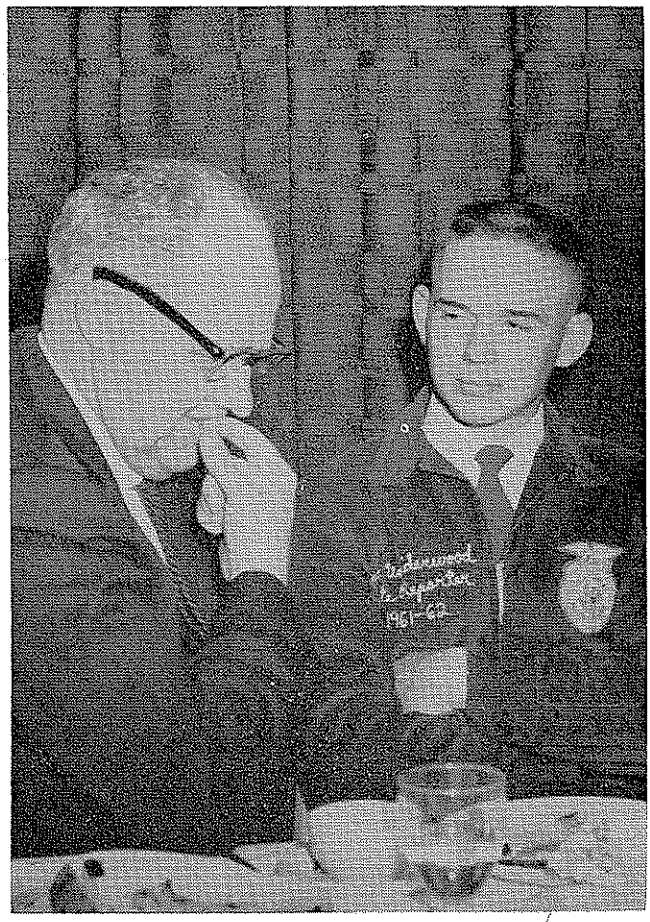
Stories in Pictures

COW GOES TO SCHOOL

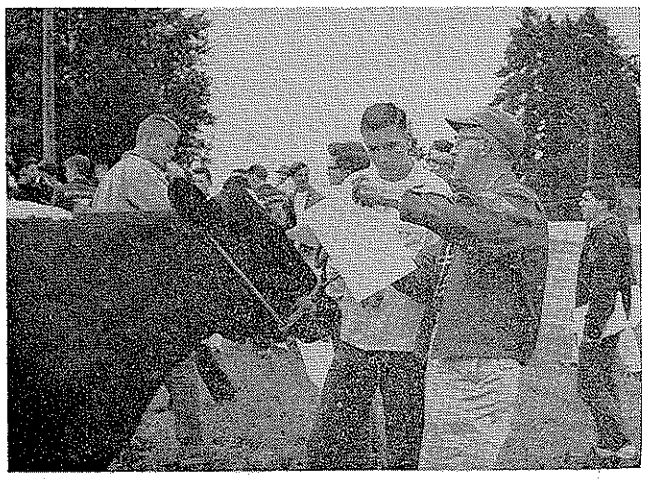
The Minnesota Association of Future Farmers recently kicked off a new activity to publicize the dairy industry in the state. A cow milking demonstration was conducted before an audience of 627 elementary school youngsters of the Morris Park School in Minneapolis. Minnesota's 285 chapters were invited to sponsor this event to encourage youngsters to drink milk.



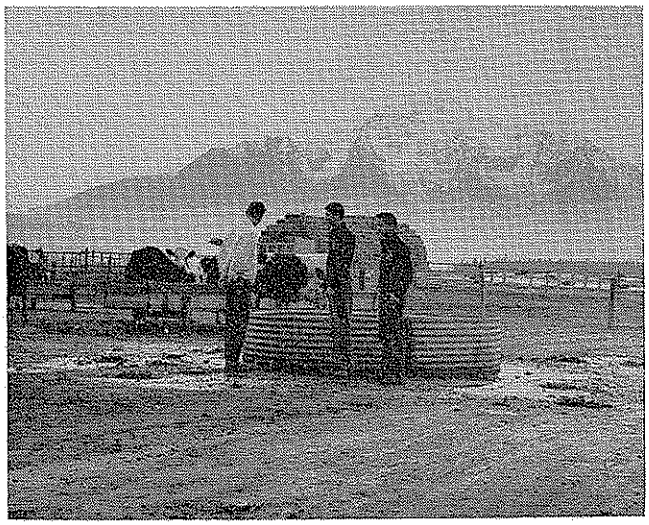
Archie F. Burnett, Vocational Agricultural Teacher, Eminence High School Eminence, Indiana, has two of his sons in his vocational agricultural class. Ronald (left) is a past president of the FFA chapter and Henry has been elected vice-president for the coming year. Both boys have extensive farming programs including soybeans, corn, beef cattle and sheep which they carry out on their 288 acre family farm.



Governor Frank Morrison contemplating with a State FFA Officer at the 1962 State FFA Convention Banquet.



Vo-Ag Instructor Walt Kantola, Mark Morris High School, Longview, Washington, discusses a performance pedigree record with a student. This action was typical at the Dairy Type and Performance Pedigree Workshop held at the Western Washington Experiment Station during August. Twenty-two chapters were represented by approximately 150 students.



Palmer Vo Ag Students observing feeding methods on a new 11,000 square feet dairy feed lot in the Matanuska Valley, Palmer, Alaska. Left to right are David Cottrell, Dennis Campbell, and Ray DeVilbiss.