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Agricultural Education

Albert W. Richardson, Reading, Mass., winner of speaking contest at the sixth national convention of the Future Farmers of America

"The improvement of conduct, that is, the improvement of whatever one does is education."
—Francis F. Powers and Willis L. Uhl

EDITORIAL COMMENT

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ANOTHER A. V. A. PAPER

IN THIS issue of the magazine we present the A. V. A. paper of Dr. C. B. Gentry on "The Teaching of Farm Management in All-day Schools." This is a challenging subject, and no one in the United States is better qualified to write or speak on it than Dr. Gentry. He has studied the subject for years and has had much experience in dealing with it. Dr. Gentry is now director of resident instruction and dean of the division of teacher training at Connecticut State College.

A BIGGER JOB

THE year 1929 will long be remembered for the crash of the stock market—but historians will record this date as the beginning of a new era in human society, not only in America but in the world as a whole. The crash was only the detonation of the cap which exploded the charge. It should be recognized, furthermore, that the explosive material had long been in preparation, with the War as only one element in the mixture.

The world is in the midst of the greatest turmoil in its existence. Abroad we see great experiments in government, such as fascism and communism; continued hatreds with threats of war and war in fact; collapse of international conferences, and flaunting of the efforts of the League of Nations; serious and widespread economic distress. In the United States we see the New Deal and its unprecedented activities in government control of business and industry; the multiplication of alphabetized government agencies; the downfall of the economic structure with resultant unemployment and widespread distress.

All of these phenomena are true indications that we are in the throes of a changing order, both economic and social. Such tremendous upheavals as these in which we find ourselves are not without cause and are certain to have far-reaching effects. We of this active generation must not be blind to this, we must recognize the problem as it exists, and so far as we can, understand its implications and contribute to its solution.

Teachers of agriculture must recognize their responsibility in this matter, from two viewpoints—first as rural educators, and second as citizens. As teachers of farm youth and friends and advisers of farm people we must do all in our power to assist them in understanding their difficulties and in bringing about a satisfactory outcome. We must study these problems as never before; throw aside old ideas and prejudices found deficient; examine new proposals critically; and accept those willingly which have promise of value. I feel very strongly that from now on our province is broader than that connected with the production and distribution of agricultural products. I believe that our whole rural social structure is due for much modification and that agriculture teachers must be prepared to advise and lead in such change. It is certain that we are in a most strategic position to render such service.

As citizens we must, more than ever before, participate in molding the character of the society in which we live. It is obvious that vast changes are coming whether we will or no. If these changes are to be for the best then intelligent thinking must be carried on by all those capable thereof. Do not fail to read informative current articles on social and economic questions; forget Amos 'n Andy for a while and tune in on speakers who will give you the latest ideas on recovery and reform; discuss the situation with informed and intelligent acquaintances; think and think and think. This old world is in rather desperate straits, and I'm therefore urging that we must all take an intelligent part in bringing about its recovery.

We have a bigger job than ever before—and it's more than ever important that we make good. Stand off and study your job impartially, make your plans intelligently—then work hard to carry them through.—S. D.

BLUE BOY

BLUE BOY is dead.

The grand champion Hampshire boar, which was featured in the picture "State Fair" and was later given to the vocational agriculture students of California, died as the result of a kidney infection, the direct outcome of having been kept in show-ring condition too long.

Put in the custody of the California Polytechnic school for the benefit of the Future Farmers of America throughout the state, the prize animal never responded to treatment used to reduce his weight and put him into condition as a herd sire. In the last year, he sired only two litters.

Blue Boy was grand champion of the 1932 Iowa state fair and reserve grand champion of the National Swine show the same year. His dam, B. B's Pride 1st, is one of the greatest hogs ever produced, having been grand champion at Iowa five times in succession and grand champion at the National Swine show four times in succession.

At the time the film company gave Blue Boy to the vocational agriculture group, it was hoped that he would be of great benefit in bringing some of the world's best breeding to California, but it soon became apparent that the animal, kept in show-ring condition for several months during the summer of 1932 and then for six months on the movie lot, might never be of great use.

As a yearling, he was sold for more than $1000, and was purchased by the film company almost four years ago for $500. He was about five years old when he died—older than most show-boars get, according to livestock experts.

The picture in which Will Rogers starred as the owner of Blue Boy is said to have done a great deal to build up a more sympathetic feeling toward agricultural problems, and is credited with having helped to build up a considerable increase in attendance last fall at hundreds of fairs and livestock shows throughout the United States.

DON'T HOLD OUT

THIS magazine is a cooperative undertaking. It is for those engaged in agricultural education, and largely by those engaged in agricultural education. Aside from keeping up your subscription (surely no teacher of vocational agriculture should ever miss a copy), you should occasionally write something for your magazine. Soon the summer months will be upon us, a time not conducive to creative efforts. Within the next few weeks pass along some of your ideas or experiences to others by putting them in writing and sending them to one of the editors.

The Teaching of Farm Management in All-Day Schools

C. B. GENTRY, Connecticut State College

The Present is a Good Time to Prepare for Farming

C. B. Gentry

WOULDN'T you make a lot of money if you could always buy at the bottom of the market and sell at the top — buy when goods are plentiful and sell when they are scarce—buy on a falling market and sell on a rising market? Yes, you would, and you can do it in farming. Do not be discouraged with farming. It is a *basic* industry. The world must have farmers. But things look discouraging. That is because we are close to the bottom of the market. Prices may be bad. They may even be worse for a few years yet. But they will rise. When prices are low is a good time to "get in." When the other fellow is discouraged and getting out, he will sell you a bargain. We have some "boarder" farmers, marginal fellows, who get along in good times in spite of their inefficiency. They are the first pushed off in hard times. PREPARE YOURSELF TO BE A *GOOD* FARMER NOW SO THAT YOU CAN "CASH IN" WHEN THE RISE COMES. What does "cashing in" mean? It means more money, more satisfaction, more pleasure. It means that you put more into life and get more out, that you help yourself, your community, your state and nation.

The following, taken from the April 7 issue of "Farm Economics" is written by G. F. Warren, one of the foremost authorities on farm economics and farm management in the country. Read it and heed it.

"This is a good time for a young man to prepare for farming. One who studies agriculture now probably will be ready to start farming when he can buy a good farm business at a low price. From the long-time point of view, farming promises as desirable a mode of life as ever. The present panic is causing the loss of the life-time savings of thousands of thrifty persons who happened to start farming too recently to be out of debt, but the men who begin when prices are at the very bottom may actually profit by the disaster to pre-depression agriculture.

Wages are good so that one can earn money rapidly during vacations. Probably it will be a long time before there is a better opportunity to save money out of wages, provided the worker is willing to go without some of the things that are not necessary for his health or education. Many persons always spend all they earn as soon as they get it, if they have not spent it before. They prefer temporary pleasure to future happiness, or may be carried along by their associations rather than control their own lives. The young man who plans to be a farmer must have more self-control. He must pass by the shop windows, see things that he desires, and keep his money in his pocket, because he wishes to save it for future needs. One who plans to control his own destiny rather than always depend on some one else for his income should keep an account of his receipts and expenditures and occasionally go over the expenses and see which of them he would now prefer to exchange for the cash that they cost. *The safest investment of time and money for a young man is an education.* We hear men regretting all kinds of expenditures and mistakes of the past. Have you ever heard a man regret that he studied so long?"

IN May 1924 I sent this in letter form to each high school boy taking vocational agriculture in Connecticut and a few extra copies to teachers who desired them for boys debating whether they would enter high school and whether to take agriculture if they did enter. Let us ask ourselves and you, Mr. Teacher of Agriculture, a few questions. You passed this letter to Johnny Jones, a senior in your class. He graduated in 1924, one month after you handed it to him. He had been in your class 120 minutes a day, 5 days a week, for 4 years. He was 18 years of age in 1924. He will be 28 years of age next June 1934. A lot of things have happened since Johnny was a freshman in 1920. Many things are to happen to him yet. Next Christmas he expects to marry the best girl in the world. He hopes to purchase a farm as he observes that farms are now cheap (in dollars), just as was predicted in the letter. Since June 1924 he has worked at home with his father and a little as a hired man for neighbors after his brothers got old enough to work on the home farm. What will he need in the way of experience, training, ability to think, gumption, and the like to succeed as farm owner and manager? Did you select the best things to give him during his four years with you and did you present what you did give in a way which will be most effective in training him in the abilities which he will so much need as a farm owner in these disturbed times? Has he come back to you for advice and counsel since he left school in 1924, has he regarded your opinions and judgments highly, has he demanded that you give a part-time dull-season course to him and his fellows to discuss the changed and changing conditions since 1924? Have you given him and his fellows a course dealing not only with problems of production but also with problems of management and of citizenship? Can he select the enterprises for his farm and determine the proportion of each in such a way as to employ most effectively his time and the time of those whom he hires? Did you teach him in the high school in such a way that he would follow the changed conditions of financing a farm business? Can he and will he take advantage of opportunities to join and become an active member of cooperative enterprises? Did he begin a long-time supervised farm practice program in 1920 which has constantly expanded? Has he reinvested his earning, if any, in his enterprises so that he has now the small amount of capital necessary to secure a deed to a good farm? Has his pick-up experience in the past ten years been much more profitable to him because of the four years of instruction which he took with you from 1920 to 24?

What Johnny needed to succeed the past ten years and what he will need the next thirty years is too much to be mentioned in a half hour. We can be quite dogmatic, however, in asserting that one thing he has needed, and will continue to need, is more training in thinking of the managerial type and more specific training in the management of a farm. The solution of the most critical problems of the past ten years and for many years to come will demand ability to adapt one's self to rapidly changing conditions, ability to think clearly in terms of cause and effect, ability to define problems, ability to see clearly in their relationships and in their proper proportions the facts and factors which should guide one in the solution of his problems. In short, Johnny Jones and all his associates need more than anything else the ability to think. It is my contention that it is possible and almost as easy to teach boys how to think as it is to teach them what to think (and much safer). The farm-as-a-whole attack in the study of particular farms affords one of the best opportunities for teaching boys to do the kind of thinking which will always be necessary in a successful farm business and which will always be necessary in the solution of the civic and social problems at present so very pressing.

when I was state supervisor, I took notes upon the teaching I observed. The following is taken from my notes. Let us visit the class together.

The date is February 1926, the place is Willimantic, Connecticut, the teacher is Mr. Hahn. Juniors and seniors are combined in the same class. Here is a description of what happened. Mr. Hahn's farm management class was dealing with buying a corn binder. The class had been studying Mr. Pomeroy's farm as a case since September. The boys were making an attempt to decide whether Mr. Pomeroy should use a corn binder. The following is a list of things that members of the class outlined as factors which should determine whether Mr. Pomeroy should use a corn binder for his silage corn. These notes are in the exact language of the boys: "Determine whether he can use the tool. Find whether he has a corn binder now. Find what condition it is in. Whether it should be replaced. Find out how he cuts his corn silage now. Find out about other equipment he needs as much or more. Dismiss further consideration of the tool if others are more urgent. Find what portion of his capital is now in equipment, because he may have already bought more machinery than he should have or bought less practical equipment. Find whether his fields are as well cleared as those of other farmers who use corn binders. Find whether he has fields in his rotation where he could not use it. Find whether the size of his fields is as large as those on which other farmers are now using a binder. Find whether the shape of his fields is as good as those on which other farmers are or have been using a binder for some time. Find out the extra result from the use of the tool by workmen. Evaluate objections of the owner against the use of the tool." To this list after discussion, was added the following: "(1) Determine whether he can hire a corn binder for cutting his corn. (2) Determine the community practice as to the use of a corn binder for silage. (3) Determine what it would cost him per year, per acre, per ton of silage to own his own binder. (4) Determine what difference, if any, the binder will make in silage quality. (5) Determine whether he might use a binder purchased and owned cooperatively with one or more of his neighbors."

HERE is another lesson with the same teacher in the same year.

Job under consideration: the hiring of farm labor. The class was discussing the perquisites which Mr. Pomeroy gives his hired man in addition to the cash which he pays. On a previous day the class had planned a survey of the things which farmers usually furnish their hired men on farms in the community. A summarized list of the things furnished was placed upon the board by the teacher as rapidly as they could be gotten from the boys who had made the survey. Some items, such as a house to live in and milk for the hired man's family, occurred quite frequently, while other items, such as transportation of the hired man's child to school and a

be surveyed. Some home farms were included among those reported in the survey. A comparison of the perquisites furnished by farmers included in the survey and of those furnished by Mr. Pomeroy, the case farmer, was made. An estimate was also made of the value of the perquisite or service furnished by Mr. Pomeroy to his hired man. The final summary showed the following estimates for Mr. Pomeroy's place with the annual credits for each item furnished: a poultry building credited at an annual value of $1; house, $300; wood, $60; milk, $50; land for garden, $3; apples, $10; garage, $25. Horse and labor for the garden, a driving horse, use of an automobile, eggs, fertilizer for the garden, manure for the garden, telephone for the farmer's house, electric current for pumping water, transportation of hired man's children to school, one day off a week, and many other items were furnished by other farmers in the region, but were not furnished by Mr. Pomeroy. A very stimulating discussion on the part of the boys showed that they had a full grasp of this situation. One boy suggested that he thought Mr. Pomeroy ought to be sure that the prospective hired man's wife was present when the hired man was employed, since the house being furnished was modern and Mr. Pomeroy might be enabled to employ the hired man for less cash if his wife would urge him to accept Mr. Pomeroy's proposition because the house was modern. This boy must have been a cross between a Yankee and a Scotchman.

LAST fall I observed the following lesson taught by Mr. Wells, regular teacher of New Milford, Connecticut, with practice teachers observing. Mr. Wells took his boys to the case farm for a further study and inventory of what Mr. Hipp had to work with. The lesson was labeled "Taking an inventory of Mr. Hipp's farm," but what Mr. Wells was doing was much more than taking an inventory. The class was not paying attention so much to what things on the farm were worth as to what was there and the condition of each item. The boys were more interested in the ages of the cows, the number of cows, the number of vacant stanchions, the number of apple trees, how the trees had been pruned in times past, the variety of apples in the orchard, the number of fields, the size of fields, the shape of fields, the number that had been cultivated, and similar items, rather than the value of or price at which these items could have been purchased or replaced. Mr. Wells was constantly stressing what Mr. Hipp had to work with on his farm, so that the boys might have data at hand to make wise judgments suggesting reorganization of the farm in future lessons. I did not confer with Mr. Wells to determine just what his procedure will be during this year in the teaching of farm management, but I assume that he is following the farm-as-a-whole attack and the case method of instruction which he was taught in Connecticut State College in 1925 and which he has

line form, this method of attack is about as follows: New Milford is located in a general farming region where dairy—including hay, silage, and pasture—tobacco, and fruit are major enterprises and where poultry and vegetable growing are of minor importance. The farming is general farming throughout the entire area except that there are perhaps a half dozen specialized fruit farms. The vocational agriculture course in New Milford continues through four years, 120 minutes a day, five days a week, students receiving two high school credits per year. The first two years, freshman and sophomores are in the same class, and the enterprise organization has been used. One or more home projects are begun in the freshman year and usually continue through the four years in a more or less well worked out, long-time program. Juniors and seniors are in the same class, and the farm-as-a-whole attack, labeled in the course of study "farm management," is made the center of study for two years. Case farms representing dairy, tobacco, fruit-dairy, and occasionally a specialized fruit farm are adopted by the class for study during the two years, the central problem being in each case, "What would I do with this farm if it were mine during the next 5 to 10 years?" An intensive study of the previous management, the present management, and proposed reorganizations of the case farm is made. The reorganizations proposed for a two-year period are worked out in detail. Some decisions, such as what rotations to be followed when the farm will be expanded to include ten more cows, or tobacco eliminated, or apples included as the major enterprise, are planned for a longer period of time. While the intensive study is being made of the case farm as a type method of attack upon farm management study, some of the boys—and ideally all of them—are carrying as supervised farm practice a study of their home farm parallel to the class study of the case farm.

Formerly No Case Farm Used

When we began this work, we had an ambition to have each boy carry a study of his home farm under the direction of the teacher, and no case farm was used. We soon found that a teacher was just not big enough to grasp all the essential details necessary for him to know in the guidance of students in this form of supervised study. We found need also for a pattern in method of attack such as is furnished by the case farm study. After having had the experience with the method of attack on the case farm, boys, as a rule, are able to apply the same methods to the study of their home farms without leaning so heavily upon the teacher. By this system the boy is made responsible for any proposed reorganizations of the home farm, usually with the assistance and advice of the father, and the teacher does not "get into a hole" with the father because of having obligated himself to a particular policy in the management of a particular farm without adequate knowledge of the local conditions on the farm for making his

judgments. This may seem to you like shirking responsibility, but if you attempt to make reorganization suggestions which are serious and which are to be followed upon 15 or 20 or more farms located at varying distances from the school center and to do it on the level on which it ought to be done, you will find that the teacher will have more of a task than he could accomplish even if he devoted full-time to the job and did no teaching at all. Of course, a teacher could put a boy through the motions of accumulating data and he could himself jump at some rather sound conclusions as to managerial policy, but my contention is that the level of thinking demanded is too high for any one person to attain for so many farms at the same time. In some ways it is fortunate that the teacher can have only a limited knowledge of the several farms, since he will be put into a position of having to make tentative suggestions and ask questions of the boy responsible, which, in turn, gives the boy an opportunity to do his own thinking.

First Step in Study of Case Farm

The first step in the study of the case farm and in the boy's study of the home farm consists in taking an inventory such as Mr. Wells' class was taking, described above. During the process of taking this inventory, the class interviews the farmer to find out the history of the management of the farm in so far as he knows it, and to ascertain his present policies in management and his plans for the future. The inventory of the farm and the present practices are stated in enough detail and with enough objectivity so that the class can figure out the approximate labor income which the farm yielded for the current year and, if possible, for one or two previous years. The class then proposes changes which might be made to produce over a series of years a higher labor income. If you sense fully what such a problem means, you will have some realization of the number of facts and factors that the class has to take into consideration in making proposed reorganizations. Boys are given an opportunity to determine for themselves what decisions are to be made, what things they should take into consideration, and what weight each factor should have in making the several decisions. Sometimes they work as a group, and sometimes the teacher will ask each individual to list the factors or to make the decisions for himself, pooling and comparing results at appropriate times. Usually there will develop in the class a number of plans for reorganization, frequently falling into two or three general policies or schools of thought. In such instances each group or each individual may be allowed to work through his reorganization to a hypothetical labor income. Care must be exercised that the boys under these circumstances do not pad their results in support of a policy of dairy or fruit or tobacco. A number of trials and proposals may have to be worked through, and the process described above repeated over and over, before the reorganization is finally more or less tentatively decided upon. As a rule, the owner of the case farm will be much interested in the process and will be a valuable critic of the proposed reorganizations. It is desirable that the reorganization finally worked out shall be the best possible and in every way practicable, but the organization as finally worked out is not nearly so important as the thinking that the boys go through and the method of attack which they learn in the process. It is therefore important that the teacher constantly be on his guard not to do the thinking himself in either the case farm situation or in the home-farm supervised practice. Occasionally it will be found that the home farm or the case farm do not furnish a broad enough base for making decisions, and it will be necessary to find out community practice through a survey or by other means, as was illustrated in the matter of determining what perquisites Mr. Pomeroy should give his hired man, in the lesson described above. The summation of the approved practices of the better farmers of the region is likely to be a better criterion upon which to base a judgment than the practice in single cases, and, in addition, the boys will have the experience of acquiring another method of attack—that of watching their neighbors and learning from their errors and successes.

Teacher Must Not Rush

This whole process of getting acquainted with the farm and proposing farm reorganizations in detail for two years and less in detail for four to eight more years is the most difficult step in the entire process of teaching farm management. Under no circumstances should the teacher rush over or hurry the class in this work. Such a study of a case farm together with the correlated study of the home farm by each boy will take not less than 12-16 weeks and frequently more time, depending upon the diversity of the farming of the region, the complexity of the organization of the home farm and case farm, the number in the class, and other factors. It will be very much better to give less time than planned to the succeeding activities than it will be to give any feature of this work inadequate attention. All of the succeeding abilities to be acquired and activities which the student performs in acquiring the abilities will be based upon the decisions made as to the organization and reorganization of the case farm and of the home farm. Ability to lay out the case farm will be influenced, of course, and based upon the type of farming which has been decided upon in the farm organization. Decisions to be made relative to obtaining and handling labor; setting up, keeping, analyzing, and utilizing records and accounts; securing capital in appropriate amounts at the appropriate time; securing and maintaining equipment, and the like—will all depend upon the farm organization or reorganization previously decided upon.

I shall not pursue further a detailed analysis of the exact conduct of the work from this point, but will refer you to Federal Board for Vocational Education Bulletin No. 88, "Analysis of the Management of a Farm Business," and to pp. 13-17, Federal Board Bulletin No. 153, "Training Objectives in Vocational Education in Agriculture," which give outlines of procedure. In general, the outline which I wrote in Bulletin No. 153 is the one which I would still recommend, with perhaps one or two slight modifications. "Renting a farm" and "buying a farm" should be placed late in the year or even at the end of the two-year study, since it is necessary to consider about all the things one has to consider in managing a farm in the process of making a purchase. Buying a farm therefore, affords a good opportunity for a review of all the farm management work by the class, with a little change in point of view. Procuring a farm is listed as the first job in Federal Board Bulletin No. 88, "Analysis of the Management of a Farm Business," I assume because it seemed logical to have a farm before one manages it. I would point out, however, that in the purchase of a farm one has to consider all of the things which he would do with the farm if it were his. We have found that a detailed consideration of the home farm which is already a problem and the consideration of a case farm which can be adopted for the purpose can be made very effective for purposes of study in method of attack. The item or ability of "Determining the type of farming in which to engage or the appropriateness of a going farm business" can well be included with the job of buying a farm and near the end of the course. It should not be placed first as it is placed in the suggestions on page 13 of Bulletin No. 153. Teachers should not, however, lose sight of the current agricultural situation in connection with any part of their teaching, from the first year to the last, and constant reference should be made to current events as they affect farmers and the nation as a whole.

Objectives

We believe that a procedure such as outlined will serve to accomplish two principal objectives of farm management work. These are: to give a boy a pattern of procedure in the management of a farm so that he can make a better labor income and be a better citizen in his community; and to give him an increased ability to think, which will involve abilities to define problems for himself, to marshall facts and factors in their solution, and to make wise decisions.

Methods

We hope that we will not become wedded to any particular method or device in accomplishing these objectives. Dr. Stewart of Cornell suggested a few years ago that methods are like dentist's tools, any one of which is to be used when it is most effective in accomplishing the results desired. Since the result to be desired in farm management is increased ability to think in connection with particular situations of a certain type, there is ample opportunity for using every tool at the teacher's command—readings, supervision of study, field trips, survey interviews, casual observation, pick-up experience, and many others.

The need for a concrete situation in

which boys may practice thinking suggests that the case method of attack will be fruitful. Mr. A. P. Williams of the U. S. Office of Education, Division of Vocational Education, in his bulletin No. 103, "Methods of Teaching as Applied to Vocational Education in Agriculture," says: "In teaching managerial jobs, it is essential that actual case situations be used. It is relatively futile to use hypothetical cases for this purpose, and it is worse yet to generalize with no case situation at all in mind. Making general recommendations for a community or accepting conclusions on the basis of ready-made arguments or fundamental principles does not constitute managerial thinking or training. The use of actual case situations forces both teacher and pupil to grapple with facts such as are encountered in actual farm business. Managerial thinking involves the selection and evaluation of facts and the making of decisions based on such evaluations. Attempting to do managerial thinking without actual working data to deal with is like sitting down to a dinner with no food on the plate."

I agree most heartily with this point of view. It is probable that more teachers err in their procedure in originating and defining the problems for the boy than in any other connection. When a problem is singled out for consideration and clearly defined, it is frequently half solved. If a teacher does not give boys an opportunity to find their problems and to define them and delimit them, he has taken away part of the opportunity for teaching the boys to do the things which they will have to do in actual life. What boys need most is a natural setting in which to think. Add to this a little stimulation and guidance in the formulation of problems and their delimitation and then keep out of the way. In actual life men frequently do not recognize their problems until severely bumped by them; they frequently do not clearly define the issues until the opportunity has passed when the solution will be of any effect. All through our school systems, boys are *given* things to do. Much of what they are given to do is right, but along with the things assigned, every boy ought to have a chance to find some things to do for himself.

Use of Aids

Can a teacher use such aids as Federal Board Bulletin No. 103, "Methods of Teaching Applied to Vocational Education in Agriculture"; the manual, "A Course of Study in Managing a Farm," by E. T. Lewark, worked out in connection with Master's Degree work at the Virginia Polytechnic Institute; and "Farm Management Job Sheets for Pupils in Vocational Agriculture" by Holloway and Roberts? The answer to this, in my opinion, depends upon how they are used. If properly used, they can be a great source of help. If improperly used, they may get in the way of doing a real good job of giving a student an opportunity to do his own thinking.

Federal Board Bulletin No. 88 on the analysis of the management of a farm business is an excellent aid to the teacher as a suggestion of things to be done, but it is not a good manual for a pupil and it does not purport to be a good syllabus for a pupil as an outline of study. Federal Board Bulletin No. 103, "Methods of Teaching as Applied to Vocational Education in Agriculture" contains some very helpful suggestions distinguishing between the method of attack in the teaching of an operative job and the method of attack in the teaching of a managerial job, and gives some very fine concrete illustrations of type lessons as well as an excellent theoretical discussion of the instructional process in part III. Teachers will do well to study this bulletin with care.

Mr. Lewark of Virginia has elaborated upon the material contained in Federal Board Bulletin No. 153, "Training Objectives in Vocational Education in Agriculture," and has made many additional valuable suggestions for the teaching of farm management. He suggests the use of a case farm and of the home farm for intensive study, and outlines in considerable detail decisions, factors, and information needed for these studies. These course outlines should be very suggestive for the use of teachers but should not be put into the hands of students, because it takes away too much of the opportunity for them to do their own thinking.

Professors Holloway and Roberts of the University of Arkansas, have published "Farm Management Job Sheets" which are designed for the use of the student as a guide in the study of his home farm. No mention is made of a case farm for parallel class study, and I assume that it is not intended that one shall be used. This manual can very much more safely be put into the hands of students than the Federal Board Bulletins or Lewark's course of study outlines. I should be glad to give this manual a trial for the guidance of students in the study of the home farm provided that a case farm is used with the class as indicated above. The 1933 edition suggests many activities which would not only be helpful for a student to do but would serve to take the load off of the teacher in the guidance of the pupil's supervised farm practice work—and I will acknowledge that this load is too heavy. I would contend, however, that students ought to have an opportunity to originate, define, and solve problems connected with a case farm in addition to the study of the home farm whether guided by the job sheets such as contained in the Holloway-Roberts' manual or whether guided by the teacher.

Future Developments

I shall only suggest the line of future development which I think the teaching of agriculture in a high school should take. *First*, more managerial teaching and more teaching of farm management should be included than is yet included in the four-year curriculum. This is particularly true when less than two years is given to farm management work. *Second*, a more careful selection of managerial jobs should be made for the first two years. During these two years the student should thoroughly master the ability to do enterprise cost accounting. Budgeting and estimating should be a prineipal feature of his home project planning. An inventory of crops, animals, equipment, and the like should be included in enterprise project record books, and more attention should be given to the selection of major enterprises for supervised farm practice work. Intensity and extensiveness of cultural practice, seasonal distribution of labor, and fluctuating demands upon labor, equipment, etc., cycles in production, cycles in prices, changes in demand, should all have major consideration during the first two years. Boys should be brought into contact with practicing, successful farmers as often as possible. The long-time program of supervised farm practice is a move in the right direction. It may be necessary to drop the enterprise organization of courses and to substitute a farm-as-a-whole attack from the freshman year on. Cultural practice and operative considerations will dominate the first two years, while the management of a farm will dominate the last two years. There should be no sudden break, however, between years, as the first two years will contain plenty of managerial jobs which will serve to familiarize the student with the method of attack, while the content included in the first year will include a consideration of the farm-as-a-whole.

Third, there will be more chance for boy-thinking activity. Thinking in all years of the high school is still too stereotyped, emphasizing memory, logical organization, and technical considerations. We dogmatize where we make a pretense of setting the stage for increasing the ability to think and for inculcating a tentative attitude.

Fourth, more boys should be attracted by this type of teaching so that we will not have the problem of boys dropping out during the junior and senior years as at present. *Fifth*, and last among the future developments that I would mention, is better prepared teachers. It will be absolutely necessary to have teachers with plenty of farm experience, well trained in colleges. The college training must contain more training in farm management and in farm economics than the typical training program of the past has included. Perhaps the farm management teachers of the college will find that some applications of the case method in their teaching will be helpful in reaching their own objectives as well as suggestive to their students as a method of attack.

Objections

The following have been raised as principal objections. I shall merely enumerate them and give my reactions very briefly. (1) Boys cannot do this type of work. To this I would answer that I have seen boys doing it, and know that the boys who remain in high school during the junior and senior years can do it. I believe that boys who should be induced to remain in high school during the junior and senior years but do not now so remain, can do the work if properly guided in it. We are prone to underestimate what boys can do in the way of thinking for themselves when given a chance in a concrete situation. We must remember that boys come to us who have, for the most part, ob-

(Continued on page 144)

The Use of Illustrative Material as a Teaching Aid

R. M. KARNS, Teacher of Agriculture, Newton, Kansas

JOHN, Dick, and Bill are three farm lads who happened to enrol for vocational agriculture in the "X" high school. You and I, as teachers, are more or less responsible for their being there. They had heard, perhaps we instructors had told them, that we had a course in our high school that offered the very things a farm boy needed. Anyway they are enrolled, and we are responsible for their welfare.

Had we been well acquainted with these boys, we might not have invited Bill to enrol. Permit me briefly to describe these three boys. You have them in your class, and I have them in mine.

John came from a good home; he and his sisters won scholarship awards this spring. John has a fine, inquisitive mind, is almost sure to go to college, will make an excellent record while there, and it is very doubtful if the old home farm will see him again except as a visitor.

Dick is an average student, is capable enough but inclined to be lazy and to loaf when you are too busy to notice him. You have to give Dick a "dressing down" every once in a while. He adds spice to your program and keeps you on your toes.

Bill is a very poor student, as students go. He scarcely knows his multiplication table, his grammar is the despair of the English teacher, and you wonder how he ever passed from the eighth grade. And yet Bill is eager to learn; he is a farmer, his pony is always the best curried, his feed bunks are the fullest, his pigs are the tamest; in his heart there is a deep-seated love for nature and the wide open spaces. He would never be content anywhere except on the farm. To my mind, Bill is the hidden treasure in that class, and you as a teacher must find him and make him know that you have given him something worth while.

We should realize that we are training individual boys and not a *class* in vocational agriculture. Realizing this, our problems are half solved. With these facts in mind, and ever remembering that we have in our classes John, Dick, and Bill, I will endeavor to show how illustrative material might be an aid to each of these boys.

First, crayon work cannot be overlooked. I use it constantly; hardly a lesson goes by without my using crayon as an aid in getting some point across.

One should have plenty of blackboard space. At one time, I recall, I had four crayon pictures of swine on the board for perhaps a month. I put the pictures up as we were studying swine, along about the time the boys were selecting gilts and sows for project work. These pictures served as a judging incentive as well, as I would change certain features of the pictures almost every day. At first the boys did not always observe these changes until brought to their attention, but it came to the point where I could not fool a boy in the class with those pictures. Then I took them off the board. The pictures did two things. They took up the slack time before class periods and, they taught the boys to be critical in their inspection of farm animals.

All the boys received a benefit from this type of instruction, and I was always gratified to observe how Bill progressed under this type of work. That sketch of the animal was something he was able to grasp. The crayon sketches had a direct carry-over, as shown by the reference the boys would make to the drawings as we were inspecting or judging farm animals.

Do not use a drawing as a last resort, but use it as a part of the lesson plan. Lead up to it with some such remark as "I think I can best illustrate the differences between these seed types by these drawings." Then proceed with the drawings, emphasizing the points you wish brought out. This type of teaching has a happy way of making it easier on the pupil as well as on the teacher.

A series of crayon sketches was used. In the first chart I presented our basic animal—an animal of acceptable type, strong in those sections where we desire strength. The drawing is but incidental, the principal thing is to stress some of the points, both good and bad, to observe in the selection or judging of swine.

THE subsequent drawings will be deviations from the original—each showing one or more faults commonly found in swine.

The next and main group of illustrative material is the materials you have gathered for your laboratory work. I believe I can best illustrate this type by setting up a job in the Identification of Grain Sorghums.

Each student is furnished with a crops identification manual. The tables in my room will accommodate from four to six boys, and I have found that to work the boys in groups makes instruction easier. You can get one or more good students at each table, and in this manner student helps student, the instructor acting as a referee for the group.

The next step is to check the boys, to see how they have progressed. A group of selected heads is then brought out, including duplicates of varying types. These are put in a chalk trough. Number the samples and have each boy write down what he thinks the name of the sample is. The papers are checked, mistakes are corrected, and the boys are given a chance to straighten out any mistaken ideas they may have made.

We now have studied and tested the boys over grain sorghums. What do we do with this material? It is now placed where the boys can have access to it at any time. The chalk trough or a box on a back table serves this purpose. Let the boys browse around in the samples during ten minutes before class, and you will find that some of them will stay a few minutes after school to get their problems straightened out.

This plan of using illustrative material, with modifications, is adaptable to much of the teaching in agriculture.

There are many other forms of illustrative material used in teaching agriculture to farm boys. The following three are important:

a. In almost every community there are outstanding breeders of purebred livestock. An agriculture teacher is missing a fine opportunity if he does not avail himself of this splendid teaching material. There is no better way for the boy to acquire knowledge of what constitutes correct type than to actually work on high class animals.
b. Some of your boys have outstanding project programs. Never miss an opportunity to visit this type of illustrative material. It is the best advertisement you have in the community. Good continuation projects are ideal teaching devices. I have in mind several projects I have supervised that have grown from a single animal to sizable herds in just a few years.
c. Lastly, and to me, at least, the most important illustrative aid, because it is the type we need most, is the type called 'improved farm practices.' The acid test of our work is shown in the influence we have had in our own communities. Should we not take pride in that drove of purebred swine, that herd of dairy cattle, that group of farrowing pens placed on clean pasture each year, those sanitary poultry runs, those market-topping lambs, smut-free kafir, that line of terrace, and, most important of all, the sensible square-shooting boy we have watched grow and develop from a youngster in high school to a young married man settled on a farm and doing a better job of farming than dad did.

We again think of John, Dick, and Bill—our three boys. John got his grade card marked across the front of it "One of the best students we ever had." Dick received a 3 on his, "no comment." Bill got a 3 on his, and I could put on that card "The best project of the year." Bill still doesn't know his multiplication table very well, and his grammar makes "goose pimples" appear on the neck of his English teacher, but he hasn't changed his idea about being a farmer. One of the best compliments I ever had came from this common country boy. He had the opportunity to visit the agricultural college, and I asked him to write up his visit for the high school paper. Among other things he said was this: "They were creep feeding their lambs at the college, just as Mr. Karns told me to feed mine."

Again let me say that Bill was my biggest challenge, and illustrative material aided me in helping him solve many of his problems thruout his schooling.

Part-Time Schools

A Program Appealing to the Varied Interests of Young Farmers Attracts Part-Time Students in Ohio

J. B. McClelland, Assistant Supervisor of Agricultural Education

BY selecting a program of studies and other activities to meet the varying needs of young farmers, 143 Ohio teachers of vocational agriculture were able to enrol 3,328 boys and young men in part-time classes during the 1932-33 school year.

J. B. McClelland

Agriculture teachers in Ohio learn something about the needs and interests of prospective part-time students by making a survey of all young farmers between the ages of 16 and 25 in their communities. The teachers decided in 1928 that making such a survey should be a part of their annual program of work.

Last year 88 per cent of the 197 teachers in the state reported that they had up-to-date survey data concerning this group. Eighty-two per cent of the teachers who had surveys offered part-time courses last year, enrolling an average of 23 boys and young men out of an average of 33 prospects. Experience in Ohio indicates that the making of a survey, which includes a personal interview with the young farmers, usually results in the organization of a part-time course. A study of the interests of 50 part-time students in Ohio, made by personal interview, showed that while the largest number, 22, ranked managerial type of class work first, 14 of the 50 placed the mechanical type of course first in interest. Eleven placed the supervised practice first, and 3 said that they were most interested in the social or recreational features of the program. While only 3 gave social features first place, 15 ranked this item second, indicating that the importance of this interest should not be overlooked.

At the time this study was made, less emphasis was placed upon project or other supervised practice work for these students than at present. Today teachers are finding a greater interest than formerly in the selection of projects that will enable these boys to earn some money for their own use.

These farm boys and young men are facing very serious vocational problems. Until three or four years ago approximately half of the farm boys in Ohio found employment in cities after they stopped school. Today this migration to the city has practically stopped, and we have instead a movement from city to farm. The present economic situation as well as the larger number of persons on farms are factors that have increased the difficulty of obtaining a satisfactory living on the farm.

In order to meet the interests of farm boys in a managerial type of course and in a type of work that will provide an opportunity for the boy to make some money, many teachers in Ohio offer some work in farm management as their first course for part-time students, and then follow this work with a course in some enterprise in which the student may have an opportunity to make some money. Swine management, poultry, dairying, and potato production and marketing are popular courses with our part-time groups because they offer possibilities for the boys to introduce some improved practices and earn money.

Many of these boys get started in the farm business as a result of their project work. In many instances their supervised practice work also results in an increased income from the farm business as a whole. Part-time students in poultry classes in Ohio in the 1931-32 school year reported 1,022 specific improvements in poultry practices on their farm homes as a result of their part-time class work. Similar improvements might be mentioned in most other farm enterprises.

In order to appeal to the mechanical interests of the group, many teachers find it advisable to include in their part-time course a unit in mechanical work, such as farm shop or farm engineering. In some cases part of the evening is devoted to classroom or laboratory work on some managerial unit, and then the group goes to the shop for mechanical work. Sometimes ten or more meetings are held on farm shop or farm engineering and then ten or more on some other subject that appeals to the managerial interests of the group and offers more possibilities of financial returns through project work.

Surveys in Ohio show that very few of these out-of-school boys and young men take an active part in the social life of the community. In Ohio more of these young men belong to the Grange than to any other organization, yet only one of every six belongs to the Grange. The prospective part-time student has been referred to as the "forgotten boy." The agriculture teacher should see that he gets a "new deal."

In 88 communities in Ohio, part-time groups have formed Young Farmers' organizations which are providing for the social and recreational needs and interests of members. These organizations take an active part in school and community affairs. The Young Farmer groups sometimes arrange with the Future Farmers for a joint parent-and-son banquet. They frequently arrange educational trips. In some cases county groups have arranged programs.

A few teachers in Ohio, in addition to vocational subjects, have included in their part-time work such subjects as agricultural business English, business methods, civics and sociology, physical education, and diet and health. Such work helps to interest students and adds to the value of the course.

Agriculture teachers in Ohio have worked out some standards for awarding part-time certificates and diplomas to students who meet certain requirements as to attendance, scholarship, and supervised practice work. Many boys look forward to receiving this recognition at a part-time class commencement. The diploma is given only after four years of work. Space is provided to write in all subjects studied during the four years, and additional subjects are added each following year. The student is thus encouraged to continue even after he receives a diploma.

That this program, designed to appeal to the varied interests of young farmers, is an effective means of securing enrolment in part-time classes is indicated by the fact that Ohio enrolled more than twice the number of part-time students that were enrolled in such courses in any other state, according to the Annual Report of the Federal Board for Vocational Education for the 1931-32 school year.

Part-Time Work in Simi Valley, California

ARVID NELSON, Instructor in Agriculture, Simi, California

THE Simi Valley lies snugly tucked away between two ranges of hills just out of Los Angeles. Its chief products are oranges, lemons, walnuts, apricots, grapes, tomatoes, beans, and barley (the last two on the drier land in the valley, and part way up the sides of the adjoining hills). Aesthetically satisfying, and agriculturally efficient and self-contained, the community itself falls somewhat short of offering the most desirable social advantages, especially for that group of young men recently graduated or dropped out of high school. To meet the demands of this group, the vocational agriculture department of the Simi Valley High School began a series of part-time classes, which have now completed their second year.

To fully appreciate the type of class work offered, it should be mentioned that nearly all members of the classes so far are permanently or intermittently employed by three large ranches. The two largest of these specialize in the major crops of the valley—citrus, walnuts, grapes, apricots, and tomatoes; while the third is planted largely to grapes. Most of the owners and managers of these ranches are college graduates, with long experience in growing these specialties on a large scale, one of them producing practically all of the world's supply of tomato seed. To set up skill objectives for a part-time class under these conditions was, therefore, quite out of the picture. The common-sense procedure would seem to be to set up two main objectives. The acquisition of the general principles underlying cultural practices, with some emphasis on the managerial phases; and the satisfaction, at least in part, of the social needs of the group. The manipulative abilities involved in cultivation, spraying, pruning, budding, transplanting, harvesting, etc., either had been acquired by the individual, or were insured at the proper time under the personal supervision of experts in charge.

Enrolment

Work preliminary to enrolment was in the nature of personal visits with the young men involved. Eighty minutes a day, of school time, had been set aside for field work by the instructor in connection with this class. The first year's enrolment totaled 19; the second 26. This enrolment included the managers of the three ranches mentioned, who, by the way, were remarkably faithful in attendance.

Nature of Class Work

Since the boys were employed during the day, the class met in the evening: bi-monthly for classroom discussion, and weekly for the social phases. The modified conference method was used, wherein the leader laid down the general foundation for the discussion, later participated in by the whole group in a rather informal way. The topic for discussion was picked by the group from a suggested list (in line with the objective previously mentioned), one meeting in advance. In addition to the instructor, discussion leaders included the rancher operators referred to, the president of the local school board, who is an authority on citrus growing and marketing; and the two managers of the local citrus and walnut exchanges. In such discussions as were lead by the instructor, he leaned heavily on the practical experience of the qualified experts in the class. Carefully done, this seems to involve no loss of prestige.

Topics for discussion included: cultivation, fertilization and irrigation of the major crops—citrus, walnuts, and tomatoes; pruning of grapes; improvement of strains and varieties; keeping of tree records; and the marketing of citrus and walnuts. After an hour's discussion of each unit, the class would adjourn to the social activity.

The Social Activity

This particular group of boys are intensely interested in basketball. No attempt is made here to justify this activity from the standpoint of vocational agriculture. This program seems to be what these boys want, and we are pragmatic enough to feel that that is the real criterion. School and local-community leaders heartily endorse the activity as a valuable directed outlet for youthful energy, and the work seems to have become part and parcel of community life. No complaint is made as to the lateness of the hour, except perhaps inwardly by the instructor, who must referee the games to keep high group loyalty from spoiling the fun. The class rather naturally divides itself into three teams, one representing each of the larger ranches mentioned, and one the rest of the group. Games are played in a round-robin tournament, with percentages kept on all games played. To climax the season, the two high teams go into the playoff. A large part of the community turns out regularly to root for the contending teams, thereby actually distributing the pleasure and benefit from this phase of the work. One of the obvious by-products is a fine community feeling, with its cordial support of the school and its activities.

Follow Up

Very definite follow-up work is done with this group. The instructor uses the time allotted for intensive field work in the form of personal contact with each student on the job. No presumption is made of supervising practice in the accepted sense of the word. That is taken care of by the managers and foremen of the ranches, qualified men either interested as owners or responsible directly thereto. But we do keep in close touch with these boys and with the owners of these ranches who so whole-heartedly support the class work. This would not satisfy stickers for improvement directly through class work, but to go beyond that would seem to us to be "going to seed."

Results

From the above, it will be clear that we can point to no definite figures as to practices improved by class work. We are, of course, on the alert to see where we can help these boys, agriculturally as well as otherwise, and stand always ready to change the work to meet these needs. Our only assurance that we succeed lies in the growth of the class itself. The first year, with an enrolment of 19, our average attendance in 10 meetings was 8. This year, with an enrolment of 26, our average attendance for 14 meetings jumped to 18 plus.

Beaver Dam Boys Revamp Home Farm

L. R. LARSON, Instructor in Agriculture, Beaver Dam, Wisconsin

IF ONE were to see in print, without knowing the facts, the program of the Ledworowski brothers in remaking their home farm in the past four years, one would believe the work was a model problem in farm management rather than a concrete solution. Tony and Edwin Ledworowski are boys living on a 130-acre farm near Beaver Dam, Wisconsin. For the past six years one or both of the boys have attended a part-time school, held either on Saturdays or in the evenings, by the present writer, and therein lies this story.

Several years ago the Ledworowskis moved to Wisconsin from Iowa. From the first, "tough luck" seemed to be their lot, and it culminated in the death of their mother. Of course, this precluded any chance of day-school education for these boys. They buckled down to work, and when the opportunity to join a farm boys' night school in the winter of 1927-1928 offered itself, they joined; and they've been going ever since.

"Many farmers know better than they do," has been a constantly stated maxim by the instructor, but the Ledworowski boys set out to "do as well as they knew." So well did they start off on the task on their home farm, that two years ago Dad Ledworowski deeded the farm over to his sons. Their record reads almost like fiction.

The biggest project they have undertaken was the entire rearrangement of their farm. A unit of study in farm management encouraged the boys to sketch their farm fields as they existed. From this crazy-quilt of 16 fields of various sizes and shapes, these young men have planned and carried out a gradual four-year system of improvement, so that by the beginning of the next crop year they will have five large, efficiently workable fields of from 30 to 35 acres each.

While the farm arrangement project has been the biggest single undertaking of these young Dodge County men, they have not taken a back seat in other undertakings. They have inaugurated a sanitation system for their hogs, farm records have been started, and soybeans are being raised for a home-grown protein supplement for their dairy cows. The beans are ground in their own home mill.

This year a course in dairy cattle improvement is being offered to 40 young men in the Beaver Dam evening school, and the Ledworowski boys are there for every meeting. Their latest project is testing their home herd of cows. They are already "doing what they know" about dairy cattle improvement. Yes sir, these men make their own farm relief.

Part-Time Work of the Junior Farmers' Club of Mt. Jackson, Virginia

C. E. RICHARDS, Instructor in Vocational Agriculture, Mt. Jackson, Virginia

THE Junior Farmers' Part-time Club of Mt. Jackson, Virginia, is composed of 12 to 18 boys who have had vocational agriculture in the high school and are now farming in the community as owners or as partners in the farm. The ages of these boys range from 18 to 24. The class has been organized for three years, with meetings mainly through January to April. The first two years the boys studied farm enterprises and carried out improved practices on some of the enterprises. This year farm readjustment was taken up, with 100 percent of the boys making farm surveys with analysis made and recommendations for improvement set up. Each boy, after making analysis of his farm, set up recommendations that he expected to make during the year.

The following is a summary of some of the improved practices and recommendations as set up by the boys: 7 boys planned to improve pasture amounting to 85 acres; 3 boys planned to include some legume in the rotation, amounting to 20 acres; 1 boy put in 1 acre of potatoes for cash crop needed; 1 boy put in 1 acre of raspberries for cash crop; 2 boys planned to increase milk production of 6 cows; 3 boys planned to increase production of 350 hens; 2 boys concluded to carry 1,000 broilers for additional cash enterprise.

Evening Schools

A Suggested Procedure for Organizing Evening Classes on Improvable Farm Practices

G. E. FREEMAN, District Supervisor of Vocational Agriculture
East Tennessee

1. Consult the key men or advisory council as to the nature of the course desired.

This suggestion is made not with the idea of getting from these men a clear-cut statement as to the exact title of the course nor the practices which should be taken up, but to get a preliminary survey of conditions and the ideas of these men as to what their most urgent major farm problems are.

This information will tend to limit the survey to such an extent that improvable practices found can probably be covered in an evening course and make unnecessary the survey of practices which could not be touched upon during the year 1933-34.

If a survey of all of the practices of the community were made, it would be necessary to eliminate many of them in organizing the evening course.

I suggest the method outlined above because I believe it to be much more economical of your time and that of the farmer.

2. Determine the enterprises likely to be covered or touched upon in the course.

For purposes of illustration, let us assume that the key men when consulted make a statement similar to the following: "Ours is a dairy community, but recently prices of dairy products have decreased to such an extent that we can no longer make any money buying grain for our cows. If we could eliminate or materially decrease this expense we might still make some money."

The enterprises involved would be dairy cows and supporting enterprises.

As another illustration let us assume that the following statement is made: "Our biggest problem is selling what we produce."

The enterprises involved in this case are all of those grown or produced for market.

As a third illustration let us assume that a statement similar to the one below is made:

"We believe that we are depending too much on crops and not enough on livestock. We don't keep busy enough of the time, and our work stock doesn't either."

Roughly the problem presented here is one of farm organization. Obviously it involves all of the enterprises which go to make up the several farm businesses of the community. The problem is, however, managerial, and each enterprise will be considered to the extent that it presents problems in the organization and management of the business as a whole.

The foregoing suggests another step in the procedure, which is very important, before the actual survey is begun.

3. Determine the jobs to be covered in each enterprise.

If we go back to the illustrations suggested by the key men of the community, we find that the problems suggested give us a rather definite answer as to what enterprises need to be covered and a general idea as to the range of the jobs involved in any attempted solution of their problems. A rather careful study of the jobs involved should be made, and these should be listed before any attempt is made to survey the practices used.

Unless one knows what jobs he is to consider, he is likely to be somewhat at a loss as to just what facts he should secure from farmers when he is actually making the survey.

Practices are used in connection with jobs; hence, a knowledge of the jobs involved in the farmer's problem or problems is essential before we are in position to make a detailed survey of the practices used.

4. Make a survey of the farms of the community to determine the practices used by farmers in doing the jobs listed under No. 3.

Perhaps no information you can secure will be more interesting to the members of your evening class group than that which you secure from the local community. This survey when completed and tabulated should give you an accurate picture of farm practices employed in connection with the jobs involved in the course.

Your next step is suggested in No. 5.

5. Compare practices found thru the survey of the community with recommended and successfully used practices.

This is a vital part of the procedure. Here it will be necessary to consult experiment station records and advise with successful farmers, to determine just which of the practices in common use in the community coincide with the best known practices. Those practices which coincide with the best known practices are not improvable generally and should be eliminated, those which do not coincide should be listed for consideration at some time during the course.

When this procedure has been followed through the entire list, we are ready to pass to the next step in our procedure.

6. Group related practices for purposes of instruction.

This step in the procedure is probably clear without further comment.

7. Set up objectives for each group of practices or for each unit of instruction.

As has already been stated, it is obvious that these will be the adoption of improved practices and the discarding of present unsatisfactory practices.

8. Collect and organize available data and work out a definite teaching unit or procedure for each teaching unit or for each group of improvable practices.

All available data which have a definite bearing on the practices to be improved should be collected, organized, and charted for instructional use.

(Editor's Note.—While the editor does not agree wholly with the procedure proposed by Mr. Freeman, he does believe that a careful study of this procedure will prove very helpful to the teacher.—V. G. M.)

Evening School Development

M. M. ROGERS, Lyttou, Iowa

I HAVE taught evening schools in Lytton for the past six years. I have found that the characteristics of the adult classes differ materially from those of the all-day students. Farmers desire practical information. They demand more informality in the conduct of lessons. They are more inclined to challenge the statements of others and like to relate their own experiences. They are not inclined to study for long periods and are from "Missouri," and their continued attendance is conditional to the appreciation which they hold for the benefits received.

Our first evening school was held during the winter of 1927-28 on soils and legumes. Only nine other evening schools were held in the state that year. We had a total enrolment of 39, with an average attendance of 20. The following year the men voted to have an evening school on swine production, and our total enrolment grew to 118 with an average attendance of 44. The evening school in 1929-30 was on dairy production with a total enrolment of 125 and an average attendance of 55. The following year the men chose corn and small grains for their topic of discussion, and we had a total enrolment of 222 with an average attendance of 82. In 1931-32 the men discussed feeds and feeding, and we had an enrolment of 157 with an average attendance of 55. The reason for the drop in attendance was that our neighboring town, Sac City, had introduced vocational agriculture into the school, and Mr. Miller, their instructor, conducted a very successful evening school in farm management. However, we believe that it is possible for evening classes to become too large. We are not concerned now with how to grow larger, but how to keep the group down to a workable size.

Most of the men have been very faithful in their attendance, and out of the 39 men enrolled in our original evening school in 1927, 30 attended our school last year. In the meantime 6 of the other 9 men moved from our district.

Some of the men have exceptional records. Out of the 63 meetings held during the past six years, Fred Haffner has attended 62, J. D. Berkler 60, A. H. Helmbrecht 60, and E. A. Titus 54. In 1929 the women asked if they might have an evening school. So far the past four years the home economics instructor has taught the women a series of lessons in nutrition, home furnishings, home management, and meal planning.

All of our meetings are held on Monday nights from 8:00 to 9:30, and run for a series of from 10 to 12 weeks. The method of instruction is of the round-table order, based upon a series of problems organized by the instructor. Extension workers, college professors, and other persons are frequently called upon to discuss such phases of the work as we do not feel qualified to handle. Such men as H. A. Wallace, present Secretary of Agriculture; H. B. Hughes, Professor of Farm Crops, Ames; H. H. Kildee, Dean of Agriculture, Ames; Dr. Stouder of the Extension Division; and the Hon. George Godfrey of the State Board of Education, have all spoken before our group at some time during the six years.

As I have stated, we were 1 of the 10 evening schools in the state in 1927; but last year we found that instead of being 1 in 10, we were 1 in 100, which shows just how fast the evening school work has progressed in Iowa during the past five years.

Evening Schools by Radio

FRATE BULL, District Supervisor
in Tennessee

Frate Bull

THE teachers of vocational agriculture in West Tennessee did a unique and interesting piece of evening school work last winter. We had an eight-meeting adult farmers' school over radio. It started January 28 and ran each Wednesday and Saturday for four weeks. The teachers put radios in their schools, and farmers flocked to the schools to hear our speakers talk to them over the radio.

Each radio program ran for thirty minutes, and after each broadcast the teachers continued the discussions with their farmers for an hour. Timely and practical subjects were discussed. Two speakers appeared on each program with ten-minute speeches. A quartet of negro singers used the other ten minutes. Such men as C. A. Willson, Dean of the College of Agriculture at the University of Tennessee; C. G. Henry, Manager of the Mid-South Cotton Growers Association; L. A. Niven, Associate Editor of the Progressive Farmer; and J. F. Poter, President of the Tennessee Farm Bureau, were on the program.

Copies of the speeches were sent to all teachers in advance of the time they were to be heard over the radio. Speeches were published in many local papers.

The time on the radio station was paid for by the Mid-South Cotton Growers Association.

A survey showed that more than 2,000 adult farmers and 1,000 Future Farmers in organized groups listened to programs. Those who listened from their homes were not counted. Our people want another farmers' school over radio.

(Editor's Note.—This is an interesting innovation in evening schools, and it is planned to secure complete reports from teachers who participated in this school.—V. G. M.)

Evening School Attendance

R. W. GREGORY, Department of Education, Purdue
University, Indiana

R. W. Gregory

ONE fundamental factor affecting evening school instruction for farmers is voluntary attendance. Such an important implication needs study and interpretation. To that end, a random sampling of evening school attendance records in Indiana has been made. A study of these records reveals some interesting problems and questions.

Thirteen evening schools of 10 sessions each had a total of 517 individuals in attendance. For purposes of this study it was decided to consider one who attended half or more of the 10 sessions as being a "regular" pupil. So considered in these thirteen schools, 45 per cent of the 517 attending qualified as "regulars." Seventy-two per cent of these "regulars" attended the first session in their respective schools, whereas only 48 per cent of the different individuals attended the first session. In other words, 48 per cent of the individuals attending, if they were "first nighters," contributed 72 per cent of those who came often enough to be considered regular.

In the 13 schools 20 per cent of the individuals attended only one night, 13 per cent only two nights, 12 per cent only three nights, and 10 per cent only four nights. There appears to be something in getting a pupil back for at least a second session. The chances for holding him as a "regular" are greatly increased.

In these schools seven special sessions were scheduled and advertised. In each instance these "specials" were held as regular meetings, and outside specialists were brought in as speakers.

In the schools where these "specials" were featured the total attendance at the sessions just previous to the "specials" was 173; for the "specials," 335; and for the sessions immediately following the "specials," only 110. In five of the seven schools the attendance was lower in the first meeting after the specials than it was in the meeting just previous. In four of these schools the attendance never again equaled what it was before the "specials" were featured.

In one school the continuity of the sessions was interrupted at the sixth and seventh meetings by a sleet storm and a revival church service. In the first five sessions the attendance was steadily increasing, running 14, 13, 20, 33, and 36. The sleet storm cut the attendance to 3, and the next week in competition with church services only 7 attended. In the four sessions following this interruption the attendance was 11, 11, 19, and 23 in that order. In this particular school there were 50 different individuals in attendance; 18 were "regulars."

In a second school the first session's attendance was 15, but at no time were there ever that many again. As a matter of fact, for the next nine sessions the attendance was 11, 12, 9, 11, 9, 7, 6, 6, and 5. There were a total of 28 different individuals enrolled, but only 6 were "regulars." Of these 6 regulars 5 were in attendance the first night. Nine of the above 28 attended only one session.

STUDY of a third school's attendance shows the following. In this school there were 88 different individuals who attended one or more sessons. Only 17, however, came enough times to be counted as "regulars." The opening session drew 19 individuals, and 9 of the above 17 regulars were in this group. That is, approximately 21 per cent of the total number attending furnished 53 per cent of the regulars. In this school one of the afore-mentioned "specials" was scheduled. It came as the second session of the course and drew 52 in attendance. Twenty-six of those there for the first time in this "special" did not return for more instruction. The attendance in the third session of this school was 15 and then 24, 28, 24, 29, 23, and 25 in order.

A final check on the attendance at two other schools reveals interesting comparisons. These schools were located in the most fertile and prosperous agricultural regions of Indiana. Each was taught by a man in his third year of teaching experience. Each school was held in a high school community where vocational agriculture had been taught three years, and the course taught was the same, "Growing and Fattening Swine." Each school had a total of 61 different individuals in attendance for the 10 sessions. In one school, however, only 18 of the 61 were "regulars," while in the other 30 were so considered.

The most consistently recurring idea in this whole presentation appears to be "Why?" We make no attempt to answer definitely here but offer the suggestion that for the vocational agricultural teacher who expects to succeed as an evening school teacher it becomes imperative that he keep and interpret his records of attendance.

Farm Mechanics

Teaching Electricity in Departments of Vocational Agriculture

FORREST B. WRIGHT, Department of Agricultural Engineering, Cornell University

Forrest B. Wright

IT IS only within the past ten or fifteen years that electric power lines, the great highways of convenience, have been extended generally into rural areas, making it possible for farmers to use this economical, safe, and convenient form of energy for light, heat, and power.

During this period the number of electrified farms has increased many fold. The investment by farmers in wiring and equipment has become large. The annual bill for electricity used on farms runs into millions of dollars and is steadily increasing.

Each year brings more and better ways for the farmers to use electricity; in fact, possibilities for its use by them are unlimited. It has brought and will continue to bring to farmers practically all the conveniences enjoyed by city folk, and in addition it lightens the burdens and increases the profits of farming.

The newness of the experiences and the fascination of the possibilities which electricity has brought to the farm have captivated the imagination of the farm boy. He is eager to learn about this new, mysterious, and fascinating agency. The farmers themselves, realizing its possible significance to the future farmers of the country, are eager for their children to have at least a working knowledge of it.

It seems, therefore, that the farm boy should have an opportunity to learn what he needs to know about electricity. The logical place for him to learn this is in his school.

With this end in view, the writer has recently made a study to determine what should be taught about electricity, how it should be taught, and what school equipment is needed for teaching it. Those of us who have been attempting to teach anything about electricity to rural high school boys have more or less guessed at what should be taught. Some of the guesses have been good, some bad. This study was made with the idea of checking on these guesses.

In order to determine what subject matter should be taught, a survey was made of the following groups:

(1) Twenty-three trade, vocational, and technical schools and high school industrial arts departments in the eastern half of the United States.
(2) The high school teachers of agriculture in New York State.
(3) The engineers in charge of the rural line departments of the power companies of the state.
(4) Fifteen electrical contractors and service men who do work for farmers.
(5) Fifty farmers in central New York who are using electricity.
(6) In addition to these groups valuable data on servicing of wiring and appliances were obtained from the Dayton Power and Light Co., of Dayton, Ohio.

These groups were chosen because they are in position to be familiar with the farmers' electrical needs and problems.

For the purpose of this study the subject matter has been divided into two parts: (1) Fundamentals of electricity and its uses, and (2) wiring and appliances.

The subject matter on wiring and appliances has been further divided into: (1) Repair jobs, and (2) operation, planning, building, and the like, of wiring and appliances.

Subject Matter on Fundamentals

The results of the survey indicate that the following topics on fundamentals should be taught. These are arranged in the order of their relative value as subject matter as indicated by the survey. That is, a knowledge of volts, for example, is considered more important to the farmers than a knowledge of Ohm's Law.

1. Volts
2. Amperes
3. Magnetism and magnets
4. Ohms
5. Electromagnets
6. Watts
7. Circuits
8. Kilowatt hours
9. Direct current
10. Current electricity
11. Induction
12. Principle of motors
13. Alternating current
14. Current effects
15. Ohm's Law
16. Laws of magnets
17. Storage batteries
18. Dry cell batteries
19. Meters (principle of)
20. Conductors
21. Principle of solenoid
22. Protective devices
23. Principle of generators
24. Magnetic materials
25. Phase in A. C.
26. Molecular theory of magnetism
27. Insulators
28. Principle of transformers
29. Voltage drop
30. Cycle in A. C.
31. Safety measures
32. Static electricity
33. Principle of radio
34. Distribution systems

Subject Matter on Wiring and Appliances

The results of the survey indicate that the following repair jobs should be taught. These are arranged in order of relative value.

1. Repair cords
2. Renew fuses
3. Repair appliances
4. Repair short circuits
5. Repair wiring
6. Renew sockets
7. Renew plugs
8. Renew switches
9. Repair fixtures
10. Renew receptacles
11. Repair portable lamps
12. Repair motors
13. Remove overloads
14. Repair radio
15. Regulate voltage
16. Repair transformer
17. Repair heating element
18. Repair door bells
19. Repair insulation
20. Repair thermostat
21. Repair storage battery

According to the survey, the following topics and jobs should be taught on operation, planning, building, and the like, of wiring and appliances:

1. Install convenience outlets
2. Install light outlets
3. Install switch outlets
4. Make wiring plans
5. Wire small buildings
6. Wiring systems
7. Read meters
8. Illumination
9. Operation of switches
10. Wire splicing
11. Make extension cords
12. Door bell wiring
13. Ignition systems
14. Make trouble lamps
15. Fixtures
16. Motored appliances
17. Heating appliances
18. Install radios
19. Poultry light dimmers
20. Build burglar alarms
21. Make portable lamps
22. Distribution system
23. Transformers
24. Generating machinery
25. Build small motor
26. Code rules
27. Enlarge circuit wires
28. How to figure wire sizes
29. Make proper ground
30. Build radios
31. Automatic devices
32. Enlarge electric service
33. How bills are made out
34. Principle of refrigeration
35. Home lighting plants

Order and Method of Teaching the Subject Matter

This part of the study is based in part upon the survey data and in part upon several years of research carried on by the writer in teaching this subject.

No attempt has been made to adjust this subject matter to the time available for the teaching of electricity in the high schools. The variable amount of time available makes this impracticable.

Where time is not available for the teaching of all the subjects listed above, the teacher should choose from the lists those topics and jobs which best meet the needs of his class. Where circumstances permit, the major emphasis should be placed upon the topics and jobs with the higher evaluation.

This type of work should be given with two major aims or objectives in view. The first, and most important for a class in agriculture, is the development of "handy man" abilities and a practicable knowledge of electricity and its uses. The second is vocational guidance, that is, our boys should have an understanding of the relative importance of electricity in our society; what the work of electrical engineers is like, and what opportunities this field affords; what the work of an electrician is like, and what opportunities the trade affords; and they should have an opportunity to test their abilities along these lines.

This type of work can be taught more effectively and with greater economy if the jobs listed are taught horizontally, that is, apportioned throughout the full shop course.

The repair jobs and topics on operating, planning, building, and the like should form the core of the course content, and the topics listed under "Fundamentals" should be brought in as related subject matter. The related subject matter should be taught only after the boy's interest has been aroused in it. It has been the writer's experience that the average boy will study willingly and enthusiastically the fundamental theories and principles only after he has understood the reasons why he should.

A set of well illustrated job sheets will relieve the teacher of much detailed instruction and will, therefore, make it much easier to carry out a full schedule.

The portion of the shop course allotted to electricity, wiring, and appliances should be in proportion to the relative value to the boys of these subjects and jobs as compared to other shop work. A survey of the school area will be of great value here.

Assuming that the evaluations of the various subjects as set forth in the preceeding lists are correct, then the shop teacher should arrange the work so that the emphasis on the subjects listed will be in proportion to their value. By emphasis is meant thoroughness of teaching rather than time spent, because some of the subjects and jobs, such as repairing cords, although valued highly, will not require as much time to be taught thoroughly as would a job like installing an outlet.

Following is a suggested order of teaching "core" subject matter, with the related subject matter that may be taught with it.

1. Elementary wiring. Installation of a door bell circuit and wiring for a light outlet, using standard wiring equipment for open wiring or low voltage equipment; for bell wiring, standard equipment. This may be done on simple wiring boards, and should be very elementary.

Related subject matter

Volts—or what makes currents flow? Amperes—or at what rate does current flow? Ohms—why doesn't more flow? (Use water analogy.) Circuits—or what constitutes a path for a current? Conductors—or what materials will allow current to flow through them? Current electricity—or what is electricity like? Principle of transformers. Dry cell batteries. Current effects. Electromagnetism.

2. (a) Operation of switches
   (b) Repair of switches
   (c) Install switches

Related subject matter

Circuits

3. Simple repair jobs, like repairing cords and portable lamps, renewing fuses, sockets, and plugs. These should be continued throughout the course as they are brought in by pupils.

Related subject matter

Conductors. Insulation. Safety devices.

4. (a) Make trouble lamp
   (b) Make extension cords
   (c) Repair extension cords

Related subject matter

Conductors. Insulators. Circuits.

5. (a) Wire splicing
   (b) Repair of wiring
   (c) Repair short circuits

Related subject matter

Conductors, Insulators, Circuits, Safety measures. Protective devices.

6. (a) More advanced wiring, such as the actual installation of standard types of outlets
   (b) Wiring systems
   (c) Distribution systems
   (d) Generating stations
   (e) Code rules
   (f) How to figure wire sizes
   (g) Poultry light dimmers
   (h) Burglar alarms
   (i) Enlarge circuit wires
   (j) Renew receptacles
   (k) Renew switches

Related subject matter

direct current. Alternating current. Protective devices. Safety measures. Watts. Kilowatt hours. Voltage drop. Read a meter.

7. (a) Illumination
   (b) Fixtures
   (c) Repair fixtures
   (d) Repair lamps
   (e) Build lamps
   (f) Switches

Related subject matter

Current effects. Circuits. Conductors. Insulators. Volts. Amperes. Ohms. Voltage drop. Watt. Kilowatt hours. Meter reading.

8. (a) Install radios
   (b) Repair radios
   (c) Build radios
   (d) Make proper ground

Related subject matter

Induction. Electromagnets. Principle of radio. Protective devices. Circuits.

9. Ignition systems

Related subject matter

Volts, Amperes, Magnetism and magnets. Molecular theory of magnets. Electromagnets. Circuits. Direct current. Current electricity. Induction. Alternating current. Current effects. Storage batteries. Dry cell batteries. Conductors. Meters; Voltmeter, Ammeter, Galvanometer. Principle of solenoid. Principle of generator. Magnetic materials. Insulators. Principle of transformer.

10. (a) Motored appliances
    (b) Repair of motored appliances
    (c) Build small motor
    (d) Principle of refrigeration

Related subject matter

Laws of magnets. Electromagnets. Induction. D. C. A. C. Phase in A. C. Cycle in A. C. Current effects. Volts. Amperes. Watts. Kilowatt hours. Principle of motors. Ohm's Law. Conductors. Insulators. Principles of solenoid. Protective devices. Voltage drop.

11. (a) Heating appliances
    (b) Repair heating appliances
    (c) Build a toaster or grill

Related subject matter

Volts. Amperes. Ohms. Watts. Kilowatt hours. Current effects. Ohm's Law. Conductors. Insulators. Protective devices. Voltage drop.

12. (a) Wire a small building
    (b) Make wiring plans
    (c) Make proper ground

Related subject matter

Conductors. Insulators. Protective devices. Safety measures. Code rules.

There is no hard and fast rule as to order of procedure. What is presented here is by way of suggestion and should be modified if circumstances, such as opportunity of securing equipment, timeliness with agricultural projects, and the like, seem to make it advisable.

A good way to start is to let the boys build something, preferably something "alive," such as a doorbell circuit or a lighting circuit, so that when the job is completed the boys can see it work. Furthermore, the jobs should, if possible, be such that they can be finished in one or, at most, two periods. The interest span of young boys is usually quite short.

The survey data reveal the fact that there is very little equipment now in the high schools for the teaching of this type of work.

A resourceful teacher can obtain much of the equipment needed from the local farms, merchants, garages, and perhaps junk yards, or borrow from the physics and general science departments. A fairly complete list of equipment, if bought new, will cost approximately $175.

Practical Work in Glazing

The boys in the vocational agriculture classes at Eagle, Nebraska, have a splendid opportunity to learn how to replace broken window panes. A farmer in the district brought 17 window sash to the school shop, each with from 1 to 4 broken panes of glass. He brought glass and putty, and when I visited the school recently four boys were engaged in removing old putty, oiling the sashes, and putting in the new panes. When visiting your projects, look around the farmstead for possible shop projects, such as the above, which could be done during the year.—C. C. Minteer.

Future Farmers of America

The Deer Lodge Chapter Valley Rangers

A. W. JOHNSON

CATCHING the imagination of their audiences, built on the lure of music of the old West, the Future Farmers' Valley Rangers of Deer Lodge, Montana, have in one year established themselves firmly and with growing popularity not only in the boundaries of the city of Deer Lodge, but throughout the state as well.

The orchestra, made up of six active Future Farmers of Deer Lodge Chapter, is one of those easy, unassuming cowboy-type organizations. Guitars twanging, banjos strumming, and the fascinating melodies of harmonicas, plus good voices backed up with youthful zest and enthusiasm, make up the foundation. A repertoire of pleasing instrumental numbers, catching songs, many old-timers sung and resung through the past century, popular hits of the day, pensive melodies, snappy dance numbers, sentimental love songs, and nonsensical but nevertheless clever selections are all included. No "props" are used in presenting the act, only bright kerchiefs knotted about the performer's neck give a clue to the type of music to be heard.

Organizing primarily to give pleasure at local community gatherings, the boys have created all unknowingly a recreation for themselves, combined with an educational background in music and the additional poise that comes with meeting the public as an entertainer. No effort was made toward self-glorification, and the well-earned popularity apparently has never touched the delightful youthful outlook of the group. A desire to please larger and varied gatherings has predominated in their work.

The boys meet twice weekly for practice periods with honorary member Fred Pascoe, musical director, and A. W. Johnson, Smith-Hughes representative for Powell County and F. F. A. adviser. New members of the society are invited to attend and to practice with the Rangers.

Starting with but a meager knowledge of instrumental music, and scarcely any training, the boys with Mr. Pascoe's and Mr. Johnson's help have been drilled and coached so conscientiously and with such interested response that they are able to present as peppy and finished a program as seldom seen among amateurs.

Using the Valley Rangers as Deer Lodge's contribution in the state stunt contest in competition with eight other chapters, the local boys were awarded first place. It is the ambition of the boys to be able to attend the next National Convention at Kansas City if ways and means can be worked out.

At the invitation of the state legislators, the boys appeared last year before the governing bodies during one of their holiday programs. They were well received, and through that contact have made a place for themselves in Montana. On two occasions the boys have broadcast over KGIR, Butte, Montana. They have contributed to many private and public gatherings in their local city, including Knights of Pythias, three programs; Kiwanis club, three; Rotary club, three; DeMolay, one; American Legion, one; Elks, one; Moose program, one.

The Future Farmers of Deer Lodge and vicinity are proud of the progress made by the Valley Rangers and are pleased to recommend their efforts to anyone, anywhere.

Wisconsin F. F. A. Members Plan for 1934

L. M. SASMAN, State Adviser

WISCONSIN Future Farmers are looking forward to 1934. December 16, members of the state executive committee from the central and southern parts of the state met at Madison to consider plans for the coming year. There were present, the state president; four of the five state vice-presidents; the state secretary; and the state adviser. A similar meeting for the northern part of the state was held on February 2 at River Falls.

Plans for the state public speaking contest were the first order of business at these meetings. Last year 40 chapters took part in this contest. The state executive committee has aimed to have at least 50 chapters this year. In our state contest, the state is divided into 19 districts having from four to six chapters in each district. One chapter is designated to be in charge of each of the district contests. These districts are arranged in five sections, with one of the state vice-presidents in charge of each sectional contest. This year, it is planned to hold a district F. F. A. meeting in connection with each one of the district public speaking contests. Each boy who wins in the district contest will receive an F. F. A. sterling silver fob. Each boy who wins in the sectional contest will receive a gold plated F. F. A. medal, and the boy who wins the state contest receives $5 towards his expenses to the regional contest. The state contest is held at the College of Agriculture in May and is broadcast over the two state-owned radio stations. The boys are entertained at the agricultural fraternities while in Madison.

Plans for the state fair F. F. A. exhibit were also discussed at the state executive committee meetings. Each year the state association has 10 booths at the state fair. Each booth is in charge of one of the state officers. These booths are painted in blue and gold, and are made to tell a story of some phase of work which chapters are doing. Last year, the story of the booths was built upon the national creed; the year before, upon the objectives of Future Farmers of America as given in the F. F. A. Manual. This year, the executive committee voted to build the story around the work that F. F. A. members are doing in dairy herd improvement. Each booth will deal with some phase of this program which has been divided as follows:

(Continued on page 144)

The Deer Lodge F. F. A. Valley Rangers, Deer Lodge, Montana

Duties of Local F. F. A. Adviser

A. P. WILLIAMS, U. S. Office of Education

A. P. Williams

THE teacher of vocational agriculture who becomes a local F. F. A. adviser should be thoroughly familiar with the nature of the F. F. A. organization and its relation to vocational agriculture.

The Future Farmers of America organization is a part, and a very important part, of the vocational agricultural program. It is a teaching device designed to supplement the regular systematic instruction and to extend the boy's participation in actual farmer-training situations made possible through this boy-controlled organization.

In this connection it may be well to note that the "Citizens" Conference Committee on Vocational Education and the Problems of Reconstruction," held in Washington recently, made as their first recommendation for vocational agriculture the following statement:

"We therefore recognize the need for including in our vocational program for adolescent and adult farmers

(1) The utility of and necessity for agricultural organization, without which the agricultural industry of this country can never have a national viewpoint."

The F. F. A. organization provides effectively for such training.

The F. F. A. may also be called a self-teaching device whereby the usually authoritative teacher-pupil relationship gives way and shifts to that of the guide and counselor. It is not always easy for the teacher to shift his attitude from that of an instructor to that of an adviser, but unless he does so and unless he can impart vision and inspiration to his boys, he can not expect to have an effective F. F. A. organization.

In brief, a local adviser's duties or responsibilities may be classed under three main heads:

I. Becoming and keeping informed as to the purposes, activities, and accomplishments of the F. F. A. in its local, state, and national scope.

II. Assuming responsibility for the establishment of an F. F. A. chapter.

III. Promoting appropriate F. F. A. activities by the chapter members.

Following is a suggested analysis of each of these duties:

I. Becoming and keeping informed about the F. F. A.

1. Study the F. F. A. Manual, noting the purposes of the organization, the provisions of the constitution and by-laws, and suggestions relative to the work of the chapter.

2. Appreciate the value and significance of the opening and closing ceremonies, and memorize the adviser's part.

3. Get facts from the State Adviser relative to the State Association, programs and accomplishments, including a brief of qualifications of the boys who have been elected to the State Farmer degree.

4. Read the Proceedings of the national conventions of F. F. A.

5. Read the F. F. A. section of the Agricultural Education Magazine.

6. Read the Agricultural Leaders' Digest for F. F. A. articles.

7. Visit and observe the work of other successful chapters.

8. Study some simple and condensed booklet on parliamentary procedure.

9. Attend meetings of the State Association of F. F. A.

II. Establishing an F. F. A. chapter

1. Present facts about the F. F. A. to the boys in the vocational agricultural classes.

2. Get in touch, by visits or through correspondence, with other teachers who have been responsible for the organization of a successful chapter.

3. Have members from other chapters come to the school to talk to local vocational agriculture boys about the F. F. A. and what they have accomplished.

4. Talk with some of the leaders among the vocational agriculture boys concerning the advisability of organizing a chapter. Give these boys copies of the Manual to read.

5. Arrange for one or more boys to attend district or state F. F. A. meetings to hear programs and report back to the other boys.

6. Discuss with the boys the different types of activities in which they may look forward to engage in order to carry out the purposes of the organization and secure its benefits.

7. Make application to the State Association for a chapter charter.

III. Promoting appropriate F. F. A. activities by chapter members

1. Assist chapter to set up a program of work.

a. See that local chapter members have access to some good sample programs of work set up by other chapters. Use them, however, as a source of suggestions and as a basis for discussion and not as features to be copied verbatim without consideration of local needs and adaptations.

b. See that discussion of programs of work is opened up with group acting as an informal committee of the whole.

c. Then see that a program committee is appointed.

d. Have program committee report back at next meeting, and see that each member contributes something to the discussion.

e. Have program committee work over the suggestions received and get final approval by the chapter.

f. See that boys take time enough to set up a program that will challenge their efforts throughout the year.

g. Call attention to the specific purposes of the F. F. A. as set up in the constitution.

h. Each chapter to set up its program in terms of (1) aims, purposes or hopes; (2) specific objectives or goals under each aim, including time to be started and completed and nature of anticipated accomplishment; (3) ways and means to be used in attaining each objective.

i. Get members to confer with community leaders, such as officers of farm organization, key farmers, and the like, as to community needs.

j. Advise chapter in maintaining a balanced program of work; that is, a fair distribution of activities under the several important purposes of the organization and a seasonal spread throughout the year. At the same time, advise against attempting more than they can reasonably carry out with available means.

k. Guide boys, but avoid dictating the nature of the activities or objectives. The boys should always feel that the program is theirs and not the adviser's, and that the program fits their needs and abilities, thereby representing *what they want to do*.

2. See that each member has a copy of the F. F. A. Manual.

3. Guide boys in the selection of officers.

a. By group discussion of the duties and responsibilities of each officer.

b. Assist the boys in pulling out a statement of qualifications for each office (personality, experience, etc.)

c. Have them consider also the responsibilities of a committee chairman and the need for each member to do his part when called upon to serve on a committee.

4. Stimulate interest in the F. F. A. as a device for farmer training, particularly in connection with the development of long-time programs of supervised practice, engaging in cooperative chapter activities, and the promotion of thrift.

5. For development of rural leadership, urge participation in public speaking, the intelligent use of parliamentary procedure, and acceptance and discharge of responsibility on committee assignments, and the like. As one State Association put it, "We grow as we serve." Encourage chapter to send delegates to leadership conferences.

6. See that meetings are held regularly at a suitable time, preferably outside of class time, such as school activity period, noon hour, after school, or evening.

7. See that a definite program is set up for each regular meeting, including opening ceremony, orders of the day, unfinished business, report of committees, new business, special features or entertainment as desired, and closing ceremony. The opening and closing cere-

mony requires only about three minutes and is well worth the effort if conducted with dispatch and appreciative expression. If the chapter has set up a worth while program of work, the members will have important business to transact at each regular meeting in carrying out their objective. Occasionally special meetings may also need to be called for business or special features, such as entertainment, recreation, trips, and the like.

8. See that proper paraphernalia is provided for chapter meetings.

9. See that dues are paid promptly, and assist chapter in working out system for paying dues.

10. See that the boy officers conduct meetings and discharge duties properly.

11. Assist chapter members in use of parliamentary procedure, impressing on them the basis for such procedure, namely,

a. Justice and courtesy for all.
b. One thing at a time.
c. Rule of the majority.
d. Rights of the minority. (To be heard.)

Note also that there are occasions when it is advisable to resolve the group into a "committee of the whole" for the informal discussion of questions on the conference basis. This procedure is very helpful before important committee assignments are made.

12. Assist in planning for special summer activities, such as camps and the like.

13. As far as possible, see that responsibility is delegated to the boys.

14. Assist officers in checking on qualifications for advancement of members to higher degrees. See that standards are adhered to.

15. See to it that proper publicity is given to the work and accomplishments of the chapter.

a. Encourage chapter to put on programs at school assemblies and before civic organizations.
b. Assist chapter reporter in submitting interesting F. F. A. items for publication in local newspapers, state F. F. A. news, Agricultural Education Magazine, and Agricultural Leaders' Digest.
c. Encourage chapter to exhibit at local school, community fairs, and the like.
d. Assist chapter to prepare occasionally mimeographed news sheet or yearbook for circulation in the community.

16. See that chapter grows and prospers and that requirements of state and national constitutions are met.

—From Pennsylvania Agricultural Education.

Wisconsin Plans for 1934

(Continued from page 142)

Proven sires; pasture improvement; Dairy Herd Improvement work; homegrown feeds; Babcock Test; raising dairy calves; selecting dairy cows; the state, national, and world dairy situation; the value of dairy products; and the work in dairying in departments of vocational agriculture.

There are a few other items in the Wisconsin state program of work in which other chapters or state associations might be interested.

The F. F. A. News Letter will be continued. The News Letter is prepared each month by the state reporter. Chapter reporters send their news items to him, and he does such editing as is necessary and sends the News Letter to the State Adviser who adds the "State Adviser's Notes."

F. F. A. radio broadcasts over the two state-owned stations will be continued through 1934. These broadcasts were begun June 7, 1933, and have continued since with a broadcast every second Tuesday from 12:30-1:00 p.m. The broadcast consists of about 17 minutes by some chapter in which it portrays some phase of its activities, followed by the State Adviser's Bulletin Board of the Air which occupies from 3 to 5 minutes. The state association considers that these radio programs have been one of the most worth while activities from the standpoint of developing local, and state-wide interest.

Each Wisconsin chapter will actively promote a program of home beautification with each of its members this year. The state executive committee believes that the present time when people are exceedingly short of money is the best time to promote a program of home ground improvement, using trees, shrubs, and vines growing in the community.

THE promotion of attendance at the national meeting at Kansas City has been one other feature of the program of the Wisconsin Association which has helped tremendously in developing state-wide interest. For this purpose, the state association provides $50 to supplement the contribution furnished by the Chicago, Milwaukee, St. Paul, and Pacific Railroad. Since the state association of agriculture teachers also contributes $50 toward sending the winning state judging team to Kansas City, and several chapter advisers are willing to co-operate, it was possible this year to send 14 boys to the national meeting. In like manner, the sending of 17 boys to the Pilgrimage at Monticello and Washington last June was a powerful stimulant of interest.

The Wisconsin Association believes that the chief essential toward the development of a high degree of interest and a strong program of work is to have the program developed and carried out by the boys themselves with the minimum of guidance by chapter and state advisers.

Teaching Farm Management

(Continued from page 134)

served the management of a farm for many years. Frequently the father has talked over with the hired man, with the mother, or others, in the presence of the boy many of his managerial problems. Some fathers have even discussed these with their sons before entering high school or during the high school period.

(2) It is objected that what we are proposing is cold-storage education. I am not fearful of this type of cold-storage education. It is true that boys will not have to purchase and manage a farm, as a rule, for eight, ten, or more years after leaving high school. Teaching them to manage a farm, however, is no short-time process; it must come through many years of careful study, observation, and perhaps with some actual experience. The pick-up and part-time period from 18-28 years of age can never be made as fruitful to a young man without some previous training in farm management. Whether education is "cold" or not depends upon the apperceptive basis a boy has for understanding what is taught and the method of presenting it more than upon the nature of what is taught. Whether it is "stored" or not depends upon how vitally it appeals to him and the extent to which he has opportunity to add to his store of experience as he goes along. From observation, I am sure that this type of teaching appeals to boys, and we know that the post-high school period as a worker on the home farm or as a hired man gives the boy plenty of opportunity to add to his store of farm management experience. Well-taught farm management is not "cold," and it develops more mellowness and a greater kick with proper "storage."

(3) It is sometimes objected that this procedure takes too much time. To this I would counter, "What can one be doing with his time which would be more profitable?" I would point out also that we have the boys, or might have them, from ages 14-25 years in high school and post-high school instruction. We are still retaining too many things in the school curriculum which are so much less valuable that I doubt whether we can validly urge that this takes too much time.

(4) It is urged that teachers are not trained to do this work. Perhaps this is true, but I see no reason why they should not be trained—those in service by a post-training period through supervision or otherwise, and those in training through a reorganization of the resident instruction in the colleges.

(5) It is sometimes urged that conditions are changing so rapidly that the conclusions drawn by the boys would be invalid by the time they are ready to rent or own a farm. Again this is true so far as the current conclusions are concerned, but I would point out that the conclusions are not very important as such. The important thing is the method of attack which the boy acquires in reaching his decisions. Adaptiveness, not adaptation, is the very center of the method of teaching we are proposing.

It would be hazardous to predict just what Johnny Jones entering farming this fall on an ownership basis will be up against in the next thirty years. His father has had to adapt himself to fluctuations in weather, to changes in transportation system, to varying marketing conditions, to soil problems, and insect pests. Johnny will be up against variations in all of these and perhaps, in addition, need for cooperation, government centralized control, and no telling what else. In any case, it is safe to predict that he will need as much or more adaptiveness than the previous generation has needed, and the training that he receives should be in the direction of greater adaptiveness instead of increased adaptation.