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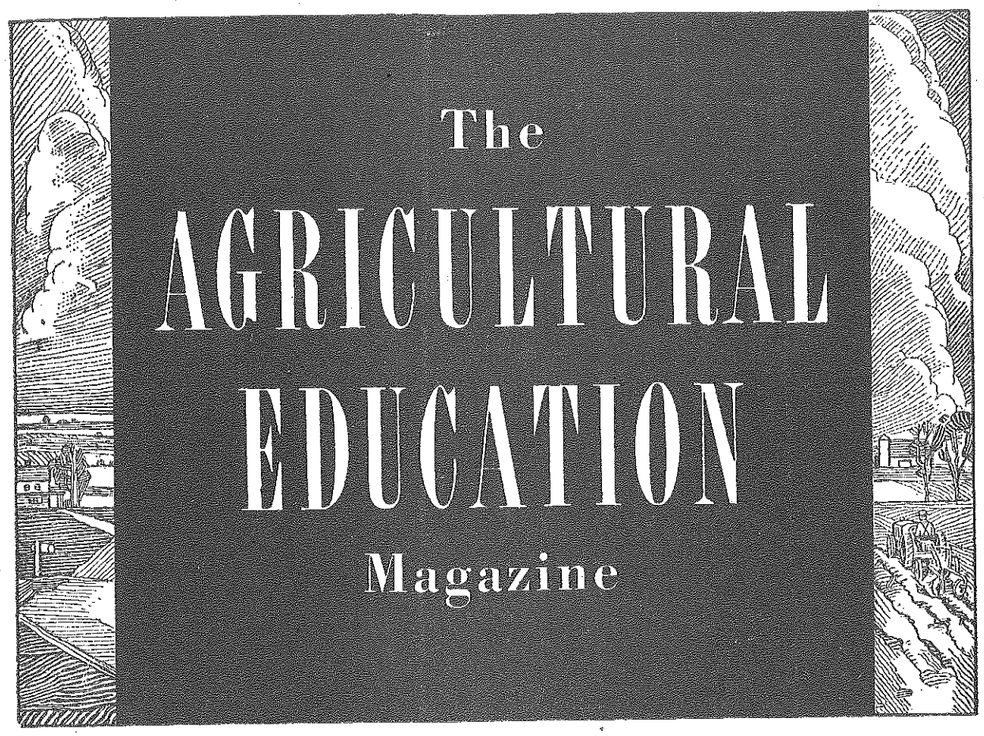


*A well-trained mind is the only dictator that free men acknowledge and the only security that free men desire.—H. B. Lamar, President of Republic of Texas*

# The Agricultural Education Magazine

A monthly magazine for teachers of agriculture. Managed by an editorial board chosen by the Agricultural Section of the American Vocational Association and published at cost by the Meredith Publishing Company at Des Moines, Iowa.

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# Professional

A. K. GETMAN — R. W. GREGORY

## Some Wartime Problems of Farmers

WILLIAM I. MYERS
Head, Department of Agricultural Economics, Cornell University

W. I. Myers

THE first and most important single problem of farmers is to increase the efficiency of labor in the farm business and in the farm home. You have given a lot of attention to it. You are going to have to give more attention to it in the next year or two.

### Increasing Food Supplies

A second problem is that involved in increasing the production of essential dairy and poultry products to meet the increased demand of fully employed industrial workers plus the requirements of lease-lend. The greatest demand is for manufactured dairy products, the concentrated things like condensed and dried milk, cheese, and for eggs. The logical place to produce these concentrated products is in the Middlewest where production costs are lower. However, the only dairy products that will do our allies any good this year are those from cows now on farms. Since time is critical, we must increase production of all existing dairy herds in New York as elsewhere.

Northeastern dairy regions are high-cost areas because they produce milk uniformly for city consumption and under strict sanitary conditions. Altho milk prices have been in reasonable relation with costs, so far, labor is continuing to leave dairy farms, and under present conditions the adjustment in milk prices under milk orders is a cumbersome, time-consuming process. Will the present retail ceiling prices on milk safeguard an adequate supply?

Up to date the milk price situation could be said to be reasonably favorable. The problem is whether milk prices can be kept in fair adjustment with rising costs. Some increase in present feed prices in relation to milk and egg prices is to be expected even if we get normal feed crops. If we should be so unfortunate as to get a short feed crop, the situation might be serious. In this situation that is just in balance now, we have had the interjection of John L. Lewis and his Local 50 of United Mine Workers. Thus far they have not been successful in obtaining farmer members because of favorable economic conditions plus vigorous action by farm organizations. But the danger has only been postponed. If milk prices get out of line with rising costs, it would provide a fine opportunity for a success-

ful campaign. That would be a catastrophe for agriculture.

Altho increased production of milk and eggs is necessary under war conditions, we might as well recognize that we are likely to have a serious problem of readjustment of production in the postwar period. When the European demand declines, unless the demand of our own cities for fluid milk increases, a readjustment of production will have to take place. Nutrition programs may cushion the decline, but it will present difficult problems.

### Maintaining Farm Machinery

A third problem that we face in New York farming is the maintenance of farm machinery and farm buildings in efficient operating condition. This is unusually difficult because of serious undermaintenance during the depression. New farm machinery is certain to be increasingly difficult to get. Good care for existing machinery is imperative. We've got to keep it in repair and keep critical repair parts on hand. Agricultural teachers, the agricultural schools, and the Extension Service have done a magnificent job of teaching the care, adjustment, and repair of farm machinery during the past eight or ten months.

### Shortage of Food Containers

A fourth problem is the shortage of new and used containers, such as egg cases and vegetable packages. Secondhand egg cases have been used almost exclusively in this state up to this time, but the supply is now inadequate because of reduced shipments from the West to Eastern markets. We have also depended largely on secondhand packages for vegetables. A fine job has been done in the salvage campaigns to reduce waste of secondhand packages and containers. Many of you may know that the Bureau of Markets of the State Department of Agriculture in Albany is issuing a mimeographed publication telling where used containers can be obtained and giving prices on used and new containers. The shortage of new containers is probably temporary, but we might as well recognize that we are likely to have to use some high-cost new containers to piece out the supply of used packages. If we do, the higher cost will reduce our returns, but that is just one of those things—we'll have to take it in wartime.

### Tin Shortage

A fifth problem is that in connection with the shortage of tin and restrictions on canning of some foods. This has caused a serious problem of readjustment of crops in some areas. Altho a supply of tin has been assured for beets, carrots, and for other vegetables for canning in 1942, we do not know how much, if any, will be available in 1943. There may be little; there may be none. We do not know the severity of these problems yet. We can follow developments, keep farmers informed, and assist in finding the best alternative crops if readjustment becomes necessary.

### Fertilizer Materials

The shortage of fertilizers, spray materials, and other farm supplies is severe and will get worse. The most critical problem to date has been in connection with nitrogen because of the demand for explosives. This can be corrected in part by the use of lime and legumes. The problem of satisfactory substitutes for scarce spray materials has been solved successfully so far. These problems will continue to grow worse and will require careful attention.

### Transportation

Another major problem is that of transportation: rail, truck, and auto. If we recognize clearly the seriousness of the present rubber and gasoline situation, we will begin promptly to emphasize use and minimize waste. We can do a lot if we keep thinking about it. The farm auto and truck problem is going to be a continuous headache. We are going to have to give serious consideration to every possible means of minimizing duplication in hauling milk and other farm products. We will probably have to use public markets to a greater extent and depend less on direct marketing by auto or roadside stand. There is no general formula. Perhaps we can anticipate some of the bottlenecks and plan to avoid them. We *must* save on trucks and rubber.

I hope that some of the projected restrictions or regulations published by ODT can be modified because they would bear with great severity on contract haulers who are an important factor in marketing many New York products. But no change in regulations will increase the supply of rubber. The farmers of New York have the job of so arranging their affairs as to make their present trucks and tires last for a minimum of two years and a probable period of three years.

### Farm Debts

The problem of farm debt reduction and the War Bond campaign must be



## The Science Needs of the Boy on the Farm

E. R. HOSKINS, Teacher Education, Cornell University

E. R. Hoskins

IN considering where to locate, it would seem that the young man who remains on the farm should have a basic understanding of the formation and disintegration of rocks, including the effects of weathering and erosion upon soil formation and soil types which will vary in both productivity and drainage. He should understand the importance of elevation, rainfall, growing season, air drainage, and the proximity of large bodies of water. In addition, his knowledge of the presence or absence of elements necessary for plant growth, the acidity or alkalinity of the soil, the amount of organic matter (and the presence of bacteria) in the soil are all pertinent to an understanding of crop and animal adaptations and to the classification of the soil as to its future use and permanency.

### Physical Sciences

Next, I would have the young man aware of the many mechanical operations of modern farming that depend primarily upon applied physics. He should be prepared to use farm power machinery and to reach his markets by use of the farm truck, or other means of rapid transportation. It has been said that his first machine should be a truck. In addition, he must be prepared to use electrical devices, modern plumbing, heating, and refrigeration. He would be expected to preserve much of his own food, thru refrigeration, as a contribution to his living. He should be prepared to repair and preserve (by paint or otherwise) his own farm and home structures, as well as his own working equipment. It seems obvious that this young farmer would be using many of the basic principles of physics, involving friction, lubrication, levers, pulleys, etc., as they are found or discovered in his modern machinery and equipment.

### Biological Sciences

After our young man has become located and equipped with the necessary devices to carry on the operation of the farm and home, he must be prepared to recognize, regulate, or control certain biological forces in his environment. He should be able to classify certain forms of plant and animal life. He should understand the function of such life processes as respiration, digestion, and reproduction. We would also want him to understand photosynthesis, osmosis, the nitrogen cycle, life cycles of insects and fungi, forms of bacteria, and many other biological phenomena. As an outgrowth of such understanding, we would expect him to be able to apply the laws of heredity for the improvement of both his plants and animals; to develop hybrids; to use artificial breeding; to supply the correct amounts and kinds of nutrition for both plants and animals; and to protect his home, stock, and crops from the ravages of insects and diseases.

An understanding of the basic principles of biology would not be complete without a knowledge of certain control measures, depending upon the use of chemicals. Insects, fungi, and bacteria are controlled in many cases by sprays, special treatment, or fumigation, tho it may be necessary to rogue in order to control a virus. Feeds, seeds, and fertilizers must be analyzed to determine their composition, digestibility, purity, or availability. Milk must be tested for its fat and mineral content, and milking utensils must be sterilized or washed in chemical solutions. Poultry houses and maternity pens must be made sanitary in order to prevent the spread of disease or infection. Wounds must be treated and cared for. Residual values of feeds and fertilizers must be figured. All of these phases of scientific farming depend primarily upon applied chemistry as a fourth science to be put at work for the benefit of our young man who goes into farming.

### Organizing Science Instruction

Since I have developed briefly the science needs of a young farmer, I would add that the selecting of teaching units and teaching content for the teacher or leader of rural youth should grow directly out of his needs in a program of continuous education. The teaching may be direct or indirect if applicable to the solution of his problems. Many fine opportunities for the integration of the work of the science teacher with the work of the vocational teacher exist in the "carrying out" of such a plan.

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farm real estate values follow but lag. The burden of debt accumulated during the period of inflation in the last war caused suffering and loss during the long period of deflation which followed. These relationships should be shown repeatedly to your high-school boys in order that they may avoid repeating the mistakes of the last war period. In spite of the soundness of New York farming, we will need to be on the lookout for overenthusiasm in land values if prices continue to rise for several years. Good farms are still cheap. A recovery in farm values from depression levels is desirable but no one gains in the long run from a boom. Paying for a farm takes the better part of a business lifetime; hence, young men should consider the value of a farm in terms of the probable level of prices over the 20 or 30 years that will be necessary to pay for it.

There are two great dangers in the years just ahead. The first is going into debt for a *poor* farm when conditions are favorable. Most people are too smart to buy a *poor* farm in bad times, but some people get stung by buying a poor farm when prices are favorable. The other danger is going into debt for *any* farm when prices and values are much above the level that is likely to be maintained over the period of years required to pay the debt.

### Buying War Bonds

Farmers, like other citizens, are anxious to do their share to finance the war effort.

because, unlike factory workers, they have to finance their own jobs as well as their homes. Since the farmer's primary contribution to the war effort is food production, he should not let misguided enthusiasm impair his ability to continue to produce food. There are some farmers with no debts, I am told. Farmers with no debts or small debts can begin to buy bonds at once, but we have a large percentage of farmers with heavy debts who must give them first attention.

The first job of the farmer is to develop and maintain an efficient business to produce food. In order to do this he must maintain adequate inventories of feed, fertilizers, and repair parts to avoid delay; use necessary credit for intensive operation but keep debts as low as possible; and not use credit to enlarge his business beyond the size necessary for reasonable efficiency.

The second job for the farmer with heavy debts is to get his debts in shape. Income paid on debts does not compete with the war program and does not cause inflation. The first step is to pay up delinquencies, if any, on the mortgage and the next to reduce heavy mortgages to a safe basis as rapidly as possible. The purchase of bonds should not interfere with the reduction of debts to a safe basis to withstand a possible depression.

The third job is to buy War Bonds to build a financial reserve. After debts are in shape, farmers, like others, should buy to the limit of their ability. Patriotism and intelligent self-interest together point

necessary expenses and of helping the government and ourselves by buying War Bonds. They are the safest and best financial reserve and will be available when needed.

### Price Level

The general price level is about 50 percent above the low of the depression, but is still a little below the average of the twenties. The present trend of prices is upward. How long this trend will continue and how rapidly prices will rise cannot now be foreseen. The general trend of prices will probably continue irregularly upward, at least while the war lasts. Price control will slow down but will not stop the upward trend in prices. The greatest danger of a violent price rise will be when fighting stops and the pent-up demands of the people of the world are released in their attempts to buy the food and the commodities of which they have been deprived during the war period.

War periods are characterized by uncertainty and by violent price fluctuations. If the war continues several years, there is considerable probability of a marked increase in prices. If a violent rise occurs, a violent reaction would ultimately be expected.

The public agitation for price control has brought advantages as well as many problems. It has caused a great increase in public interest in the price problem. It has given us a better chance to teach the

# Methods

A. M. FIELD

## A Clinical Technique for the Selection and Guidance of Agricultural Education Trainees

LEIGH H. HARDEN, Instructor in Agricultural Education and Assistant to the Dean, College of Agriculture, Forestry, and Home Economics, University of Minnesota

THERE is a growing interest in teacher-trainee selection in agricultural education. That this interest will become further stimulated after the war is quite certain. The teacher-trainer interested in the successful progress of the program in agricultural education knows that the teacher is an important factor in the success of a vocational agriculture department. The teacher is interested because he realizes that it is only thru the induction of well-qualified and interested men into the field that the teaching of agriculture will reach the professional level which connotes prestige, tenure, and commensurate compensation. Finally, the college is interested because it is concerned with the orientation and guidance of all students, including those in agricultural education.

L. H. Harden

Trainee selection, if broadly conceived, will contribute to the whole student personnel program in the college and provide one of the techniques and activities which assist in guiding and orienting students into fields of specialization best suited to their abilities, aptitudes, and interests and in which they will have the greatest probability of success and satisfaction.

### Choosing Teaching as an Occupation

R. M. Stewart (7) points out that going into teaching should not be a "falling-in process nor merely one of the individual's self-protections against unemployment but as a deliberate choice." Most teacher-trainers agree that this choice should be made upon a sound basis of the probability of the possession of qualities essential to successful teaching.

Such a program of selection and guidance needs to incorporate a complete study of the individual in the light of all available data both quantitative and qualitative. It should provide for continuous guidance and selection during the whole training period. Too often the selection of students for teacher-training has been dependent upon superficial observation of personality traits and hearsay evidence of aptitude for teaching. Teacher-trainers are rapidly coming to recognize the shortcomings of brief interviews in selecting students they "hope" teaching vocational agriculture (3, 5).

### Clinical Technique

In trainee selection the clinical technique as used in psychology and sociology may prove to be of much value. The study and use of it at Minnesota so far is most encouraging. This procedure provides a careful, objective, and exhaustive analysis of the question, whether or not the individual concerned possesses the potentialities for a successful teacher of agriculture. It includes all available data concerning each student, including physical fitness, family and financial records, as well as measurements of the qualities thought to be significant in teaching success. This selection and guidance technique (clinical) encompasses several steps: first, an *analysis* or collection, from a variety of sources, of data which provides for an adequate understanding of the student who claims an interest in becoming a teacher of agriculture; second, a *synthesis* or summary and organization of the data from the analysis in such a manner as to reveal the student's assets, liabilities, adjustments, and maladjustments, particularly as they relate to success in agriculture teaching; third, a *diagnosis*, or generalization, describing the student's characteristics; fourth, a *prognosis*, or prediction of the student's likelihood of success in teaching vocational agriculture. In the logical educational sequence, these steps are followed by *counseling* the student in his adjustment or readjustment and a *follow-up* in assisting the student with new problems in the light of the measured and subjective data. In other words, it tests and studies the students who are tentatively enrolled in agricultural education as to their physical fitness, experience, background, intelligence, aptitude for teaching, and other factors thought to be essential for the successful teaching of agriculture.

### Factors in Teaching Success

The following criteria related to teaching success and used in the present study at Minnesota have been developed from those determined to be significant by various authors of studies relating to agricultural and general teaching success (1, 4, 3, 5, 7, 6, 8).

1. General academic ability (intelligence)
2. Proper attitude toward rural life (interest in farming)
3. Interest in teaching
4. Farm experience
5. Academic ability
6. Duration of interest in teaching
7. Emotional stability (balanced personality)
   a. Satisfactory social and economic experience
   b. Satisfying community and family life
8. Physical fitness (physical energy and vitality)
9. Skill in expression

### The Measurement of the Success Factors

In the Minnesota study, these qualities or criteria are measured objectively and subjectively as to their presence, absence, and extent present with students signifying their desire to enroll and continue in agricultural education training.

### Academic Ability

General academic ability of the candidate is determined by scholastic aptitude tests and high-school achievement. In this the author was fortunate in being able to utilize the scholastic prediction program that has been in successful operation in the college for a number of years. This encompasses the scores on two achievement tests and the high-school percentile rank. The first test apparently measures ability to apply knowledge of scientific principles; the second probably adds some measure of scientific thinking; and the last factor, the most significant of the three, perhaps measures fairly fixed habits of work and study, industry, and general scholastic ability. The correlation of the variables with scholastic achievement in college is .72, and the combination is especially effective in selecting out students who have small chances of success in achievement in the courses in an agricultural college. To fortify these measures, two additional scholastic aptitude tests are given to the agricultural education freshmen. A resulting profile on scholastic aptitude for each student gives the teacher-trainer an objective basis for determining whether the student has sufficient scholastic aptitude to pursue successfully the courses in the agricultural education curriculum.

### Interest in Farming

Interest in farming and rural life is measured by the Strong Interest Inventory. As brought out in Floyd's study (4) and several others (1, 7), "A proper attitude toward rural life and an appreciation for farming and for farm problems are an admitted requisite for successful teaching of vocational agriculture." In



who has interests similar to successful farmers will have a proper attitude toward rural life and an interest in that occupational environment. Successful farmers engaged in that occupation would no doubt be found to have characteristic likes and dislikes which differentiate farming from other vocations. To be born on the farm, with a family tree of farm experience, while no doubt a factor in the development of an appreciation for farming and rural life, does not necessarily guarantee the development of these attitudes. Many farm boys with such a background are interested and have aptitude for such occupations and professions as medicine, law, skilled trades, and so on. On the other hand, we can assume that men who have *chosen* this way of life and are successful in it probably do have these attitudes. Thus, on the Strong Interest Inventory, if a candidate has measured interests which are similar to successful farmers, we may assume that he is interested in farming; likes to do the things successful farmers like to do; dislikes to do the things that successful farmers dislike to do; and would feel at home in their occupational environment. The criterion group for the farming interest key includes 496 successful farmers, 75 percent of whom are graduates of agricultural colleges with at least five years of subsequent experience in farming. The remaining 25 percent are non-college graduates with at least three years of actual farm experience.

### Teaching Interests

Interest in teaching is also measured by the Strong Interest Inventory and, in doing so, the same assumption is made; i. e., that men engaged in a profession or occupation have a characteristic set of likes and dislikes and that an individual with these characteristics will be more efficient doing the type of work in which he is interested and which he likes. The criterion group includes 465 high-school teachers of mathematics and the physical and biological sciences and 441 high-school teachers of social science. The inventory also measures interest in broad fields, some of which are related to teaching and working with people, such as the social service group which includes Y.M.C.A. workers, city school superintendents, personnel managers, ministers, and so on. High scores in a number of occupations that can be grouped together constitute a pattern of interests and fortify the score made for a specific interest key. An interest profile similar to that for scholastic aptitude is thus provided and gives the teacher-trainer an objective basis for determining whether the student has the interests which are important in the successful pursual of agricultural teaching.

### Farm Experience

Farm experience is measured by a special blank filled out by the student and including such information as number of years of farm experience, size of farm, type of farming, character of farm work, and the names and addresses of three persons who can testify for the farm experience of the student. Farm experience is a criterion believed to be significant by the authors of most of the studies concerned with agricultural teaching success (1, 5, 7). Sutherland (8), however, tance. It would seem that, other factors being equal, farm experience—at least a minimum amount—would be a definite asset in teaching vocational agriculture. Probably as Floyd (4) points out, experience gained on a better than average farm in size and capital investment, where approved practices have been followed, would be of more significance than experience on a below average farm.

### Social

Social proficiency and interest is determined in two ways: first, thru an analysis of the social participation in the community, such as Future Farmer, 4-H Club or other youth activities, and high-school and college extra-curricular activities by means of a personal data blank; and, second, these criteria are measured objectively by means of a personal inventory which is a development from the Bell Adjustment Inventory and the Minnesota Social Preference Test and is intended to measure the student's social-mindedness and participation. Social ability and interest are of evident importance for teaching success. The agriculture teacher going into a community must have the ability to adjust himself to that community and to the people in it. He must meet and deal not only with the students in his classes but with a great variety of people in his regular routine of community work and experience. How he develops and uses the personality that will enable him to "mix" and work with people will be highly important in determining his success as a teacher of agriculture in that community. Most teacher-trainers agree that "personality," which is reflected in social proficiency and interest, is of great importance. Sutherland (8) thinks that in determining the success of agricultural teachers it is the *most* significant factor and that "a good record in extra-curricular activities is a definite indication of good personality." He thinks that "the time may come when we can measure personality and can obtain a candidate's 'personality quotient'." The personal inventory used in the Minnesota study may make a constructive step in this direction. While it may be more accurate to state that this personal inventory is an "indicator" rather than a measurement of personality, it may serve a very useful end in identifying possible individual personal shortcomings that would hinder successful agriculture teaching.

### Teaching Interests

Duration of interest in teaching is determined from a section of the personal data form in which the question is asked in what year the candidate made his occupational choice. Floyd found that "an early consideration of the possibility of teaching vocational agriculture is apparently important, and that students being admitted into the curriculum in agricultural education should have given definite consideration to the teaching of vocational agriculture at an early age if they are to become the most successful teachers of vocational agriculture." Anderson (1) also found this factor to be of importance.

### Emotional Stability

Emotional stability (balanced personality) is related to the fifth criterion (social proficiency and interest) in that early social experiences are often reflected in the personality of the individual. Similarly, the same is true of early economic experiences. The candidate's family and community life are influencing factors in his emotional stability (personality). The personal inventory measures the student's morale or general outlook, social-mindedness and participation, family adjustment, emotional adjustment and attitudes. One of the studies on selection (4) concludes that "trainees in agricultural education whose social and economic experiences have been at least satisfactory are more likely to become successful teachers than if those experiences had been unsatisfactory." This is but additional emphasis upon the importance of personality as a criterion of successful teaching. The personal inventory is helpful in identifying those candidates who may not have a sufficiently well-balanced personality to indicate their probable success as teachers of agriculture. Identification is then followed up by personal interview. Such a technique is useful not only in guiding students with unsatisfactory personalities away from agricultural teaching, but also as a guidance instrument in improving the personalities of those candidates who meet the standards in agricultural education and who can profit materially from assistance and guidance in developing their personal qualities to as near the maximum as possible. The measurement on the personality inventory is further fortified by data from the personal form and personality ratings of college faculty members.

### Physical Characteristics

Physical fitness is determined by a complete physical examination given by the Health Service when the candidate enters the University. There is also a section on the personal data form devoted to questions of health which offers an additional check. Access is also available to the application for admission blank filled out by the student and provides for checking if the student has a physical handicap. Personal appearance and physical energy are determined by observation and personal interview.

### Expression

Skill in expression is an important factor in successful teaching (2). In the Minnesota study this factor is not adequately measured. Some indication of the candidate's ability in the use of language is given by an English test. Additional information is gathered on this factor thru personal interview and observation.

### Using the Information

The assimilation of the foregoing data relative to factors significant in agricultural teaching success constitutes the first phase in the clinical technique—that of *analysis* or collection from a variety of sources, data which will provide an understanding of the student. Neither space nor the patience of the reader will permit a detailed accounting of the other steps.

Suffice to say that the above data are summarized and organized in such a way as to reveal the student's possession of the

# Supervised Practice

C. L. ANGERER

## Long-Time Farming Programs

W. T. REESE, Instructor, Seymour, Wisconsin

ONE of the most important phases of vocational agriculture teaching is the development of a good long-time farming program with the all-day students.

A farming program should not be a series of small projects, such as feeding a beef calf, fattening barrows, raising capons, growing canning peas, etc. It should be concerned with the gradual development of a boy's abilities in the business of farming, with his actual establishment in farming, and with his preparation to meet the many problems of farm life.

In order to establish a good farming program with each student, it is necessary for the instructor, the student, and the boy's parents to do a lot of planning and working together.

### Steps in Setting Up Program

The first step in setting up good programs is to hold a meeting of all freshmen boys and their parents soon after school opens in the fall to talk over the purposes and possibilities of good farming programs and the methods which might be used in getting them started. Boys and parents of boys who have previously done outstanding work should take part in this meeting, explaining how they have worked out their various problems. The instructor should make a summary of several good programs and give examples of what has been done.

Following the meeting, the instructor should visit each boy's home and talk over with the family the enterprise on which the boy should start to build his program. Usually the instructor and the boy and his family will find some phase of the present farm setup that needs improvement. Oftentimes the dairy herd is not producing very well. This gives the boy an opportunity to carry out a herd testing program. Probably a purebred heifer with good production records will be purchased by the boy. Better feeding practices will follow, and soon the boy will be branching out into other enterprises and then will become thoroly interested in the entire farm setup.

Some of the boys will not have the necessary capital to make the initial purchase of livestock, seed, or equipment. A fund should be provided to lend the boy the necessary money at a reasonable rate of interest. This may be done by the local F.F.A. Chapter or by the local bank or by Production Credit Office.

After the boy is started and is working well on his initial enterprise, new practices and procedures of doing farm work will follow. It will be necessary for the instructor to call on the boy and his family several times during the year to help iron out difficulties that may arise.

At least once a year the entire membership of the agricultural department farming programs and to get new ideas on how other members are doing their work.

### F.F.A. Chapter Can Help

The Future Farmer Chapter can help a great deal to develop the farming programs by co-operatively buying new improved seed, fertilizers, purebred livestock, feed, and insecticides. The products can be purchased in large amounts at a great discount, and the best of quality may be obtained.

During the spring of 1942, the Seymour, Wisconsin, Chapter co-operatively purchased 7,350 pounds of certified seed potatoes, 180 bushels of the new Wisconsin Certified Vickland oats, 150 gallons of lime sulphur spray, 135 pounds of ceresan dust for grain treating, and 15 gallons of harness oil. In the fall of 1941 the Seymour Chapter also purchased three purebred boar pigs, a Chester White, a Poland China, and a Duroc Jersey. This made available to a large number of farmers excellent-quality stock, seed, and insecticides at a low cost.

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To think a boy's problems out for him, and then tell him what to do, is a smaller educational service than to stimulate his own thinking so that he will develop ability to use his own head on the job.

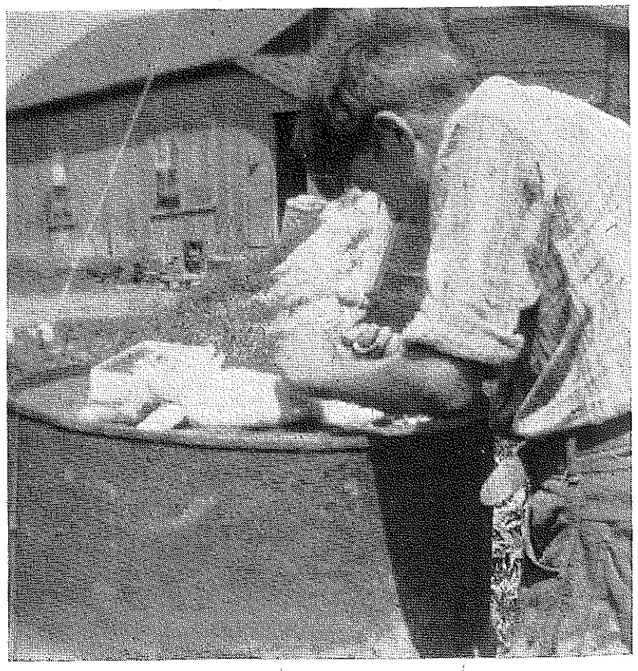
## The Use of Farm Surveys in Developing Farming Programs

B. R. DUGDALE, Instructor
Stanley, Wisconsin

A SURVEY of the home farm of boys enrolled in vocational agriculture in our high schools can be of great assistance in determining the long-time farming program for each boy. My own experience in teaching vocational agriculture in the past 12 years has proved to me that the survey is a real help in getting new enterprises started on the farms of the boys. Parents have expressed considerable surprise at the facts revealed by the farm survey and are very willing to remedy the situations.

### Facts Revealed by Use of Survey

For example, let us take the survey of a farm in the Stanley community, which, by the way, is composed of parts of Chippewa, Clark, Taylor, and Eau Claire counties in the north and west central dairy regions of Wisconsin. The survey sheet which the boy with the help of his dad filled out showed that 100 percent of the farm income was from the sale of milk. No other livestock except a team of horses was reported. Here was a real opportunity to point out to the boy and his parents that they might add some



other type of livestock to diversify their farm income. During a visit to this farm home I suggested that a flock of laying hens might be added as the first step in spreading out the farm income, pointing out that the eggs could well pay for the major part of the groceries for the table. I also suggested that they start with baby chicks to keep down the amount of investment. The parents and the boy accepted this suggestion and asked me to help them work out a partnership plan. Today this farm has a fine flock of laying hens, and the boy is caponizing the cockerels for his share in the enterprise.

Each year I have the freshman boys enrolled in agriculture fill out, with their parents' help, a survey sheet.

It is necessary to get a complete picture of the home farm before an instructor can attempt to plan intelligently a farm training program for a boy studying vocational agriculture.

### Setting Up Programs

Each year I study the survey sheets and find the chief enterprises that are lacking to round out a diversified farming program. This year we are working on baby beef and fruit trees. The members of the all-day classes and the young-farmer

departments in Clark County, in co-operation with the county agent. We secured very good prices on stock adapted to our region. The baby beef calves were purchased on the South Saint Paul market by the instructor. Eight boys have Hereford calves that are being fed and fitted for market.

### Some Results of Survey

One of the outstanding results from my use of a farm survey in determining the farming program for boys is the increasing number of production-bred dairy bull calves that I am called upon to select for the boys. These calls come from the students' parents. Surveys on the dairy enterprise showed that some of the herds were averaging less butterfat per cow than the average for the state. After a year of testing the home herd, we found the surveys were very close to the actual figures. We went to work on this and to date we have introduced 14 production-bred dairy bull calves into these low-producing herds.

I think that the vocational agriculture instructor who does not use the farm survey as a tool in establishing a farm training program for the boys in his department is missing a good bet. It has helped me a great deal.



## Project Visits in Wartime

NELSON M. COOK, Teacher, Bourbon, Indiana

WE TEACHERS of vocational agriculture are faced with a curtailment of our project visits and other necessary driving. Tires, cars, and now gasoline are among the articles rationed to civilians. If we are to continue to use these rationed articles necessary in the supervision of projects, we must prove that they are being used with the highest efficiency. It will not be a question of whether the supervised farm practice program is necessary for the training of rural youth, but whether the mileage being driven is essential. Each teacher can help his country as well as his department by becoming his own efficiency expert.

### Reduce Driving

The amount of driving that is necessary will vary with each department. In the last five years mileage on visits, and other so called "necessary" driving in the Bourbon Vocational Agriculture Department, has averaged nearly five thousand miles. This can and must be cut down. We must weed out the non-essential driving and leave only that which is absolutely necessary. It may be necessary to cut driving in half. We are told that the rubber shortage may not be abated for three or more years. Plans must be made to conserve what we now have and if possible make it last.

### Ways to Reduce Travel

There are several ways by which we can conserve our tires, cars, and gasoline and thus increase our driving efficiency. First, we can plan our driving. A department map showing the location of each boy's home will help in planning our driving route each day. An hour spent each day in making this plan is time well spent and will probably save much driving. A system of department records which shows the kind of project, date of visit, and the condition of project will also aid in increasing efficiency. No boy should be passed up to visit one farther down the road unless there is a very good reason. More visits can be made with the same amount of driving if we plot our routes to take in every boy along the road. We may find it advisable to make visits during the morning, perhaps even breaking the day unevenly with longer working hours in the forenoon. This would eliminate back-tracking for lunch. The teacher could profitably spend the afternoon mapping his route for the following day, keeping department records, and planning lessons for the regular all-day, part-time, and evening classes. Afternoon "office hours" would then make it possible for students and farmers to use the telephone and make personal calls to the teacher about problems.

### Use Other Transportation Services

The telephone, mail service, and newspaper may be used to reduce mileage. Communities will vary, but 73 percent of the students of vocational agriculture at Bourbon have telephones. Many questions not requiring a personal visit can be answered by telephone. Students can be notified of the next visit and thereby eliminate finding neither the boy nor his parents at home. If the boy does not have a telephone or is on a pay exchange, it may be possible to use the mail service.

Trips to county meetings, district meetings, state conferences, etc., must be curtailed to the minimum. Many times driving can be eliminated even to essential meetings by using the bus service. Often the number of persons attending a given meeting can be ascertained by counting the cars outside. Teachers in segregated departments must either use the bus service or pick up other teachers on the way.

### Reduce Speed

Cars will operate more efficiently and last much longer if we reduce our driving speed. In a recent test conducted at Purdue University to determine the cost of operating a car it was found that a saving of 29 percent in gasoline used was made by reducing the speed from 60 to 40 miles per hour. A saving of 25 percent was made in the oil used by the reduced speed. Three makes of stock cars were used and in each case 1000 miles was driven. Tires get only one-half the wear at 40 miles per hour that they get at 60. Brakes will get less usage at the reduced speed and there will be fewer accidents. Some states have already reduced the speed limit by law, but whether our state has or has not, it is our duty to drive at reduced speed for the duration of the war.

### Responsibility of the Teacher

If we teachers of vocational agriculture are worthy of being called teachers, we will set the driving example for all civilians. We will plan our routes, substitute the telephone, mail service, and newspaper wherever possible, travel by bus or in loaded cars, and reduce our speed of driving. We will then find our priority rating improved and rationing boards more lenient as we become more efficient in our use of automobiles, tires, and gasoline for necessary travel.

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*Nolan Screenings:* It is not building nor equipment, farms nor farm products, textbooks nor classroom mechanics, that assure successful teaching of vocational agriculture. All these are important accessories, but they alone can never bring education to the farm boys. The teacher of agriculture is the one big essential. This is an old saying, yet always as new as truth, and its full significance is not yet realized by those who teach and those who employ teachers. The teacher who knows his subject, who is trained in the arts of his profession, who loves his students, and bears good will to his fellow men, will succeed and find in his success the joy of accomplishment.

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While our vocational leadership cheerfully and patriotically accepts new war tasks and methods, we have a strong conviction that full use of existing training methods and agencies should be used by our Federal Government instead of creating and developing new, untried training agencies. In the first place, there isn't time to develop and train a competent new training leadership. In the second place, and of equal if not greater importance, to conserve our funds and to make the best use of our national facilities we should strengthen and expand existing agencies rather than experiment with new agencies. It takes time to set up new administrative procedures—it takes valuable time to train even competent per-

# Farmer Classes

J. B. McCLELLAND

W. H. MARTIN

## The Development of Community Services Thru Evening-School Programs

E. R. ALEXANDER, Specialist in Agricultural Education (Part-time and Evening Schools)
United States Office of Education

E. R. Alexander

THE chief purpose of adult instruction in agriculture is to improve the abilities of adult farmers in order that they may increase their income and live more complete lives on the farm.

Under present conditions economic and social forces that affect farm life are changing rapidly. Adult instruction in agriculture is intended to assist farmers in adapting themselves to these changes. Many farmers may not have the time or the ability to work alone in the application of scientific facts, hence the need for group action on the part of farmers to come together for systematic instruction which will aid them in the solution of their problems.

### Building a Program of Instruction

The planned or organized systematic instruction for the evening schools is made up of the problems found on the farms and in the homes of the individual members of the class.

In developing the topics which will be taught, the teacher of vocational agriculture needs to visit the farms of prospective class members to determine the most pertinent individual problems for study. A local advisory committee, composed of key farmers in the community, is valuable to the teacher in choosing from the individual problems the most important ones to be taken up by the group in the evening-school classes. It is well to spend at least a part of one meeting of the entire class in discussing the problems as a whole before finally choosing the ones to be included as parts of the course for the year.

The teaching material or subject matter used should make a direct contribution to the solution of the problems involved in the individual's farming program. Much of this material may come from the best practices of the members of the class and from successful farmers in the community. Results of experiment station investigations are useful when applicable but caution must be used to see that the data presented aid in the solution of the problems being studied by the farmers.

With these preliminary statements in mind, an effort will be made to show how Jordan Community, Greenville County, South Carolina, has developed an evening-school program and how certain community services have been developed as a result of evening-school instruction. Each service was an outgrowth of a community need.

### The Program in Jordan, S. C., Community

The Jordan Community is strictly rural and is located at the foothills of the Blue Ridge Mountains. There are about 42 square miles in the area. The community is made up of 491 native white families, most of whom own their farms. The farms average from 30 to 50 acres in size. The farmer must depend upon himself and his family for all the work. Most of the food consumed by the family is produced on the farm. The chief cash crops are cotton and peaches, with the latter gradually increasing as the former decreases.

A vocational agriculture department was established in the local high school serving this community July 1, 1937. H. A. Chapman was selected as the first teacher and is still serving in that capacity. Upon assuming his duties, he began visiting the farmers in preparation for organizing evening-school classes in all the centers in the area. At the same time, a home economics department was established in the school and the teacher was employed on a 12-months basis. She held evening-school classes with the ladies. In these classes the adults began discussing their individual problems as well as those of the community as a whole. As a result, several community service units have been developed, which will be discussed separately.

### Community Cannery

The community cannery was the first unit to be developed. The number of families using the cannery and the amount of food canned have increased materially from year to year. During the first year, 1938, about 50 families canned 2,150 cans of food. This has increased until last year, 1941, 217 families preserved 22,829 cans, and during the present season it is expected that at least 250 families will preserve about 40,000 cans of food.

The educational work in connection with the community cannery has been very effective. The teacher of vocational agriculture teaches the various phases of production to individuals enrolled in his evening classes. The teacher of home economics has as a part of her adult education program, instruction to the women on budgeting the amounts of the various food products needed by the individual families, as well as the preparation of the foods for eating. Space will not permit a full treatment of the details of the community cannery.

The community cannery program has resulted in a general improved diet for the people in the community. It supplies canned products for six school-lunch programs in the area which specifically contribute to an improved diet of school children. There is a 10-acre community garden near the cannery which furnishes vegetables for these lunch programs. The people of the community report not only greater quantities of food being conserved but also a better quality product since they began using the cannery.

### Sweet Potato Storage House

The farmers were experiencing, prior to this time, much difficulty in keeping their potatoes thruout the winter. They were using the old-fashioned "bank" method of storage. Many times the farmer would tear down the "bank" during the winter or spring only to find that his potatoes had rotted. As a result, they had almost quit growing sweet potatoes, except a small quantity to be used during the fall or dumped on the market at a very low price.

The situation has been improved by the construction of a 5,000-bushel capacity potato curing and storage house. The farmers now have an abundant supply of potatoes for home use as well as a supply to be sold during the year or stored until they can be sold for seed in the spring. Last year 135 farm families stored approximately 4,000 bushels of sweet potatoes.

A study of the farms in the community showed that there were a number of inferior varieties of sweet potatoes being grown in the community. As a result of evening-school instruction the farmers have adopted one variety for the community. To aid with this phase of the program, the local F.F.A. Chapter has constructed a plant bed for producing the sweet potato plants for the farmers. This plant bed is constructed near the cannery boiler and is heated by steam pipes connected to the boiler. Only certified seeds are used in the bed. This assures the farmer of getting good plants at a very reasonable price.

In connection with this enterprise, the vocational agriculture teacher includes in his educational program such activities as securing good plants, selecting correct soil types and fertilizers, cultivating, harvesting, grading, storing, and marketing. The home economics teacher includes in her class instruction such topics as the place of potatoes in the family diet, including the nutritional value of potatoes, and the various ways of preparing potatoes for family use.

### Community Co-operative

The people of the Jordan Community became interested in organizing a co-operative. The teacher of vocational



study co-operatives and credit unions. Upon his return to the community the evening-school classes began discussing the principles of a co-operative and how one might be organized in this community. A co-operative of 12 chapter members was organized to buy feed. At first, orders were taken by the manager in evening-school classes at the school. Only very small quantities could be purchased and kept on hand because of lack of capital and space. The group kept studying co-operatives, attending conferences, and adding members, and in January, 1940, they rented a building, hired a clerk, and went into business as the Jordan Co-operative Exchange. The co-operative now does about $2,400 worth of business a month, is run on a cash basis, pays dividends to members in proportion to what they spend, and keeps money in the community. Tho primarily a consumer co-operative, it also markets eggs, poultry, and similar produce. The former proprietor of the store they rented is now manager of the co-operative. He is an enthusiastic co-operator and says his five percent on sales brings him more money than he could make running his own business.

Prior to the organization of the Jordan Co-operative Exchange the people of the community were almost without local mercantile service. The nearest town is about 10 miles and for some of the residents it is 20 miles. In addition to keeping the money in the community, the co-operative store is rendering an added service by saving gas and tires during this emergency. Last year 250 families of the community patronized the co-operative store. It is expected that a greater number of families will use the co-operative this year.

### Credit Union

After careful study, the farmers organized a Federal Credit Union to encourage systematic savings and to provide small loans to members. In April, 1939, it started with 32 members and $105.25. At the end of 13 months it had 103 members, $618.75 on deposit, and had made 32 loans to members ranging from $10 to $100. The Credit Union has made loans to the Co-operative Exchange to aid in the expansion of its business. Officers of the Credit Union meet monthly and members meet quarterly for reports and recreation. Officers are elected at the annual meeting of members.

The teachers of vocational agriculture and home economics have included in their evening-school programs the needs for a credit union and the principles of organization and operation of such an organization.

### Farm Shop

The farm shop has facilities for taking care of the buildings and repairing of farm equipment and machinery for the farmers. Classes are being held by the vocational agriculture teacher to instruct farmers in this phase of farming. This repair program is of particular concern now in that farmers are unable to buy new machinery and equipment. One hundred and seventy-five farmers used the farm shop facilities last year.

### Peach Grading and Packing Sheds

As yet, no co-operative grading and packing sheds in the community which serve the farmers of the high-school area. Since peach production is now one of the chief cash crops of the community, the teacher of vocational agriculture includes in his evening-school program the various problems in connection with the growing and marketing of peaches.

There are seven evening-school centers in this high-school area. The teacher of vocational agriculture conducts regular evening-school classes thruout the year in four of these centers, and usually holds occasional meetings thruout the year in the other three centers. He alternates from year to year the centers where intensive instruction is given. In following this practice no center in the area feels that it has been neglected because intensive systematic instruction is offered at the center at least every two years and some instruction is provided each year at all of the seven centers.

This teacher of vocational agriculture completes the instruction for all-day classes at noon each day, thus permitting him to use the remainder of the day to work with his out-of-school groups and to carry on follow-up instruction with his all-day pupils on their farms. This is the customary schedule for all teachers of vocational agriculture in South Carolina. This community education and activity program in Jordan Community has had the hearty co-operation and support of the school superintendent, local board of education, and the people of the community. What seems to be the work of a lifetime has been in process only five years. The people have accepted this program as being sound and practical and are determined that it shall continue to grow and to serve the families of the

## Building Evening Classes on Farm and Home Problems

FREDRIC D. MORRIS, Rushford, N. Y.

THE terms "evening class," "out-of-school group," "short course," "young men out of school on farms," "adult group," and any others that are used to signify groups of rural farm individuals who are served by teachers of agriculture and their fellow workers indicate that the problem of agricultural education is of a varied and complex nature. Moreover, the great variety of terms indicates progress in this field—and further shows that workers are recognizing the problem in that they are trying to state and define it.

### Recognizing the Problems

In this discussion special attention will be given to recognizing the problem in an individual community. "How to Conduct the Classes" and "How to Follow-up and Measure the Results" might well be topics for discussions within themselves.

To find the problem and grasp it one must start far in advance of the actual teaching work. This may well be done by visiting as many farmers in the community as one can—summer is a good time to do this. In making these visits the teacher should, above all, *get acquainted* with the farm families of the community. This is a most important point. Do not be afraid to talk with these folk and more important —LISTEN. You want information; when they talk is when you collect. Do not evidence a brief case or other professional paraphernalia but make the visit informal, finally remarking that you might use some information about farms such as this and then make notes on a blank which you should have in your pocket, previously prepared. Do not stop until you have 100 blanks filled out; 200 is much better. In our case every farm in the school district was visited. A teacher can mail survey blanks and get enough replies for farm management data but he will be fairly ignorant of the intimate problems of these families that he needs to know in order to help them with the same problems.

### Families Go to School

It soon becomes evident that the problem is a family one. After organizing a group by inviting people contacted in the community to the school for such meetings, it was suggested in this case by the group that the ladies might well be invited the same evening. The homemaking people co-operated and the meetings began. Young folks planned; old folks came along with them. The ladies cooked, sewed, and repaired furniture. The men worked in the shop and discussed local problems; the younger ones studied credit and discussed getting started in farming or bettering the start they already had. The local banker came one evening to discuss credit with us. The local electric company put on a school in electric wiring which lasted four evenings; a banquet and complete social evening came in the spring. This was the nature of the in-school work of the out-of-school people.

### Examples

The next step was the following up of the enthusiastic ideas previously developed. Let us cite one or two examples. It was agreed that our village needed pasteurized milk. We discussed encouraging someone to start the project. Finally, with the aid of our health officer, we were able to convince a prominent man in the community to risk the investment necessary. He is still struggling but we feel that the worst is over and he is now profiting by his venture.

Dean Clark graduated from high school with a Vocational Agriculture diploma. He was anxious to start farming. He found a job as a hired man, first from one farmer and then another. He then found a job with a milk plant, next he married a fine young lady of the community. Now we are working to place him as a farm tenant. We feel sure that this will be accomplished soon.

Each problem is separate from the other. With a sound knowledge of the community, an enthusiasm created by evening programs of their own desire, and careful follow-up work, we can do something toward helping these rural folk to get established in farming. We can also help them to become secure in farming by living and working with

# Farm Mechanics

L. B. POLLOM

## The Responsibility of the OSYA Courses

LESTER B. POLLOM, State Supervisor, Topeka, Kansas

L. B. Pollom

THE OSY mechanical training courses established two years ago gave those engaged in vocational education in agriculture a definite responsibility and an unusual opportunity to serve the nation in time of urgent need. Established primarily to provide basic mechanical training for those who would shortly become employed in war industries as well as those who would soon be inducted into a highly mechanized military organization, the opportunity for training was confined to those between the ages of 17 and 25 who were out of school.

As the war progressed, young men of this age became scarcer and scarcer in rural communities. Those leaving the rural communities to enter the armed forces or to become employed in industry exceeded by a good margin the number who attained their 17th year and were out of school.

### New Problems

As these developments evolved, new problems of a mechanical nature began to be recognized in rural areas, especially in those areas where agriculture is highly mechanized. The production of new farm machinery has been necessarily curtailed. The production of farm machinery parts has also been restricted. This means that every effort should be made to keep the machinery now on American farms in service for the duration of the war. Every machinery part repaired and kept in service relieves industry of its production. Certainly as much of industry's skilled workmanship and material as possible should go into the production of equipment needed immediately for the prosecution of the war.

On the other hand if a broad, inclusive, and effective program for maintaining farm machinery now in service is not put into immediate operation and kept in effective operation, the lack of serviceable farm machinery may easily become the limiting factor in food and fiber production. One need not dwell on the importance of an adequate supply of food and fiber in winning wars such as the one in which we are now engaged.

### Need for the Program

With approximately 20 percent of our population actually engaged in agricultural production, each farmer must produce food and fiber for four other families as well as for his own, to say nothing for our armed forces and our allies. He must do this short-handed. With farm labor scarce and continually growing scarcer, it becomes an extravagant waste of valuable time when farm labor is sent to work with machinery that must be constantly repaired, tinkered with, and coaxed to keep it in operation.

When the OSYA courses were opened to adult farmers, a long step was taken in the direction of the solution of the farm machinery problem. The adult farmer is more intimately concerned than youth with the condition of his machinery. He is more anxious that it be in good repair. He is more appreciative of what it means to have his machinery in working condition. He is willing to make more effort and endure more inconveniences in order to keep his machinery in good shape. He understands more fully what it means if it is not in working condition. Was rural America ever more nearly "ripe" to receive an immediately useful program of rural educational service?

Those responsible for promoting, administering, and teaching the OSYA courses cannot meet the problem by thinking of farm machinery repair in terms of normal times. In normal times such repair usually consists of the farmer ordering new parts from the local implement dealer to replace worn or broken parts. Often the farmer installed such parts himself thru the use of hand tools commonly found on the farm.

### Highly Skilled Teachers Needed

With the production of farm machinery parts restricted, the OSYA courses must concern themselves with more complex mechanical operations—operations that call for both equipment and skills not commonly found on farms. If a gear wheel is worn beyond serviceable condition, it will probably be necessary to build up the cogs with a welding torch, dressing them down to the proper dimensions with an emery wheel and a file. If a piece of shafting is badly worn where it rests in a bearing, it may be necessary to build up the worn part with a welding torch, turning it down to the proper size and smoothness in a lathe. If a bronze bearing is worn beyond use, it may be necessary to run a babbit bearing in its place.

Obviously, such skills lie beyond the present skill and equipment commonly found on farms, hence the urgent need of an educational and training program that will meet just such problems. In many rural areas the need for this type of mechanical work will be far more than can be handled by the remaining few commercial mechanics.

If the war is prolonged, and there are only a few who predict its early termination, it would seem that the entire Rural War Production Training courses may well be used in many areas, especially those where agriculture has become highly mechanized, on courses in the repair, operation, and construction of farm machinery and equipment. In those areas and situations the commodity courses in agriculture should be handled in the regular agriculture courses as in the past. However, it must be recognized that there are areas where the type of farming practice may not require a large amount of farm machinery and equipment, and that the greatest contribution to the war effort would be in the commodity courses rather than in farm machinery courses.

### Teach Both Youth and Adults

We must, of course, continue to provide basic mechanical training to those youth who are still in the community. This can be done without hampering our accomplishment with the group of older farmers who will find the repair of their machinery more and more important as the war program goes along.

To repeat, in a prolonged war a scarcity of serviceable farm machinery might easily become the limiting factor in the production of food and fiber.

## Future Farmers Collect Scrap Iron

JOHN H. GASHWILER, Teacher, Moravia, Iowa

THE Moravia chapter of the Future Farmers of America has just completed a very successful scrap iron drive. The drive was launched at a regular weekly meeting of the chapter several months ago. A local businessman was invited to the meeting to explain to the boys the purpose and need for such a drive. Chapter members were enthusiastic about the undertaking from the start.

Other agencies had already contacted most of the farmers so the F.F.A. boys concentrated on those farmers who had been missed. The boys received excellent co-operation from the farmers and other patrons of the school.

The boys tried to collect the iron after school and on Saturdays, but found such procedures to be slow, so the last week of the drive all boys with cars and trailers brought them and one period of agriculture was used to collect scrap iron.

The boys were surprised to learn that they had collected approximately $350 worth of metal. The boys had quite a lot of fun selling the iron to junk dealers.

Some of the interesting articles collected were furnaces, bullet molds, hand-forged hinges, andirons, fire grates, cider presses, wood stoves, and all types of farm machinery.

The boys earned a considerable amount of money for the chapter treasury and rendered a very fine service to their



## Boys Make Cotton Dusters in Vocational Agriculture Shop

R. LANO BARRON, Assistant Supervisor, Austin, Texas

"COTTON dusters made by the Coleman vocational agriculture and out-of-school boys saved the farmers of Coleman County more than $9,000 last year," estimates J. H. Greenway, vocational agriculture teacher of Coleman, Texas.

They were constructed last summer after the cotton insects had been enjoying such favorable conditions that they threatened to destroy most of the cotton crop. Securing factory-built dusters was practically out of the question, so Greenway, with the aid of the defense teacher, started constructing a duster in the defense shop. As they progressed they called some boys in to help out.

### The Beginning

The first three dusters were two-row outfits that would dust at the rate of five acres an hour. After these had been in service some time, the local farmers (without dusters of their own) preferred the local-made dusters, at the same rate of hire, to some factory-built models. One remarkable advantage was discovered in favor of the local-made dusters in that under normal conditions the air created a suction which eliminated the need of an agitator. With this encouragement, the local boys began to take a keen interest in the construction, and built the dusters bigger and better until finally a 30-row machine was built.

Fifteen dusters were made before the dusting season was over. Thirty requests for dusters are now on file but the difficulty of securing blowers has practically eliminated further construction. Greenway emphasizes the fact that he and his boys have made the machines at cost and used mostly scrap materials furnished by the farmers. He says the machines were built at an estimated average cost of $15 each, excluding the blower, and cites an instance of one machine costing only $4.

### Farmers Co-operate

In a number of cases as many as three farmers jointly asked to get a duster built. For instance, six farmers in one community pooled the suitable materials they had on hand and aided in building a duster that they used to make two applications on 1,000 acres of cotton.

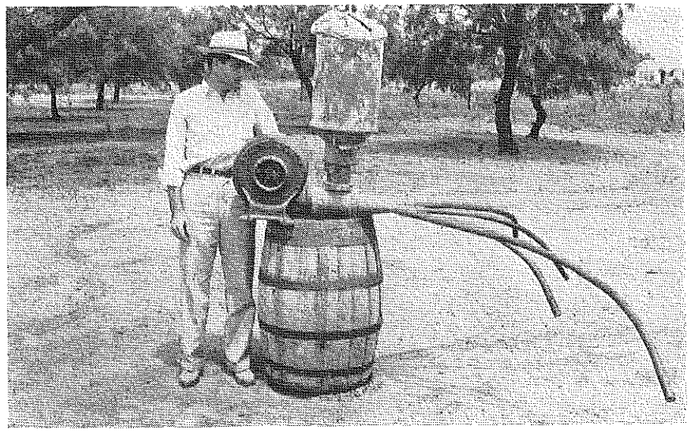
The Coleman vocational agriculture students and out-of-school youth have had access to the defense training since it was first made available in Texas in December, 1940. During that time they have made dusters, stalk cutters, trailers, cattle guards; converted horse-drawn cultivators into tractor-drawn models; and done more than 2,300 repair jobs on farm machinery.

### Many Boys Take Training

Records of the work reveal that 85 boys have taken the three Out-of-School Youth Training courses in metalwork, electricity, and woodwork offered in Coleman, and 53 of that number are now employed in defense industry at an average monthly salary of $160. Most of the remaining number are in some specialized division of the armed forces.

The estimated $9,000 saved by the local farmers is based on the fact that approximately 3,000 acres were dusted that otherwise would not have been poisoned, and the difference in yield seemed to be 30 to 35 pounds of lint per acre more on the poisoned acres.

This worth-while community service probably accounts for the Coleman Board of Education's recent announcement of the proposed construction of a vocational agriculture-defense building at a contract price of $15,500.



J. H. Greenway and the cotton duster he and his boys made

## A. V. A. to Meet in Toledo

PLANNED as a direct aid to promotion of the war effort, the annual convention of the American Vocational Association will be held in Toledo, Ohio, December 2 to 5, 1942. Man power, pre-induction training, high-school victory corps, and other war needs will be stressed by representatives of the Armed Forces, the Federal Government, war industries, and the schools.

The various A. V. A. general and sectional meetings—industrial and industrial arts, home economics, agriculture and business education, guidance and rehabilitation—will give first consideration to increased training of war production workers or the production, distribution, and use of food in the war emergency.

The Toledo convention promises to be the most important in the history of the Association, according to L. H. Dennis, Executive Secretary. The training of 2,500,000 war production workers this year in vocational schools under the Federal program is now being taken in stride, he indicates, but new demands have come in recent months, bringing new challenges to all phases of vocational education.

"Pre-induction army training and all divisions of the High-School Victory Corps provide many new opportunities for maximum participation by vocational education," Secretary Dennis declares.

"Discussions and contacts at the A. V. A. meetings in Toledo will give school executives and vocational and industrial arts teachers and supervisors opportunity to plan local programs of action that will tend immediately to speed up the war effort on the educational front."

# Studies and Investigations

C. S. ANDERSON

## The Montana Farm Mechanics Program*

W. J. WELKER, Montana State College

W. J. Welker

VOCATIONAL education has been defined as that part of the experiences of an individual that enables him to learn to carry on a gainful occupation.[1] It was the major objective of the Montana study to attempt to determine to what extent the farm-shop experiences that vocational agriculture students receive in the high-school shop classes will be helpful to them in the occupation of farming. The application of class instruction to home-farm jobs is termed carry-over. The foregoing conclusions of this study indicate that carry-over is not great.

The farm-shop course of study, the home-shop practice program, teacher preparation, and farm-shop research program are important factors leading to improvement. These factors are not receiving enough attention at the present time. This article will give attention to recommendations that will lead to improvement in the Montana farm-shop program.

### Shop Course of Study

Since the present Montana farm-shop course of study does not meet the needs of vocational agriculture students, it should be reorganized. It will still be necessary to emphasize carpentry and woodworking and tool sharpening. Gas engine and tractor repairing, farm machinery repairing, and general improvement jobs should receive almost the same emphasis as carpentry and tool sharpening.

It may still be necessary to use a few shop exercises to develop some of the desirable skills. It is, of course, much more economical to risk spoiling a practice saw blade than a good saw. The same may be said of some other types of shop work. However, it seems that many of the desirable skills may be developed on practical jobs. Drawing of iron in blacksmithing may be taught by reshaping harrow teeth. Bending of iron may be taught by making end gate rods and hitches for farm trailers. Lumber may have to be ordered overlength to allow beginners to have some practice in sawing as they lay the floor in a new trailer box.

In view of the writer's experience as a vocational agriculture instructor and his observation in this study, he believes that no time should be lost in starting first-year students in the farm shop. Time may not permit freshmen to participate in all types of farm-shop work. Even then no effort should be spared in making this year's experiences as wide and varied as possible. Freshmen may not work as fast or as well as upperclassmen in making a farm trailer or overhauling a grain drill, but they will be interested in this kind of work. The first-year students are doing these and similar jobs on their home farms without instruction. Good vocational teaching implies that the student be taught to do good quality work on a practical job at the time when there is a need for the job to be done.

Far too little time is being spent in the school shop by upperclassmen. It would seem advisable to devote from 40 to 50 percent of the total vocational agriculture time of all classes to shop instruction. More efficient results may be attained if all of the vocational time for two weeks or even a month be devoted to shop instruction. This same amount of time could then be devoted to strictly agricultural subjects.

As a further means of improving the farm mechanics of the local community, this writer would like to suggest that more attention be given to organized shop instruction for out-of-school rural groups. At no point in the whole Smith-Hughes farmer-training program is the opportunity so great for farm mechanics training to be effective. These young men have entered farming or are nearer to entering farming than are high-school students. Their maturity, need for instruction, and immediate use of instruction warrant the consideration of all educators.

### Home Practice Program

Farm-shop training in Montana will be much more effective if a vitalized home-farm shop practice program is instituted. Such a program will necessitate more careful attention to and supervision of the home-farm mechanical needs of vocational agriculture students. Instructors should become acquainted with the student, his parents, and his farm-shop supervised practice needs (and other supervised practice needs also) before the student enrolls for his first year of vocational agriculture. Survey data gathered during summer visits to the farms of prospective and other students should be made the basis of the farm-shop course of study. If the survey revealed a number of home-farm mechanical jobs relating to the student's agricultural project or other supervised practice activities, a home-farm mechanics project should be organized. Under careful direction and supervision of the parents and the instructor, credit toward graduation from high school may be granted for such a project. The home-farm mechanics project should very early take the form of a long-time plan of carrying on and improving the mechanical activities of the home farm. Improvements should include the home-farm shop facilities.

Students should be encouraged to accept the responsibility of supplying their own school-shop projects. If transporting the projects to and from the school shop becomes a problem the school may have access to transportation facilities of ample capacity for moving such projects.

### Teacher Qualifications

Vocational agriculture instructors recognize that they are not fully prepared to teach all of the types of farm shop that should be taught. This is especially true in regard to gas engine, tractor, and farm-machinery repairing. In discussing this with the writer they quite often stated, "Who is going to teach this work? We have very little training in these fields."

There are several answers to this question. These instructors might do the preliminary work of organizing a class of their all-day students or an out-of-school group. An itinerant specialist employed by the State Department of Vocational Education could then give the instruction. If a state specialist were not available, a well-qualified local man could be employed under the supervision of the agriculture instructor. Either of these methods will not only train vocational agriculture students but will go a long way toward giving the local vocational agriculture instructor the training he lacks.

Vocational agriculture instructors should not overlook advanced and specialized shop courses made available by the teacher-training institutions. It follows that they should provide worthwhile courses and then encourage the instructors to enroll periodically in these courses.

A vital point in making long-time plans for improvement in the vocational agriculture shop program has to do with the selection of future vocational agriculture teachers at the college level.

The plan of selection should provide for elimination of trainees who do not have at least average scholastic records. Those who have less than average mechanical aptitude should not be encouraged to enter the field of agricultural education. Prospective trainees who do not have an adequate mechanical background should be expected to enhance this background before becoming trainees. Such a program of selection will allow the teacher-training institutions to turn out vocational agriculture instructors who are capable of executing a worth-while farm-shop program.

Definite efforts should be made by institutions that are training present and future vocational agriculture instructors to reorient their farm-shop training objectives. Few, indeed, are the vocational agriculture instructors who will be called upon to design a barn, a farm machine, or make a brake horsepower test of a tractor. It is much more important that the selection of the right barn or poultry house and the right farm equipment for a particular farm. It is just as important that the instructor know how to lay out a foundation, how to cut the framing members for the barn, and how to repair and care for farm machinery.

Until the farm-mechanics training courses include this type of training the newly graduated vocational agriculture instructors will be inadequately equipped to execute a farm-shop program that meets the needs of the community they will be asked to serve.

### Research Program

While the status of the Montana farm mechanics program may appear to be low, there is no evidence to show that the program in the United States at large is in much better condition. State plans for vocational agricultural education are very meager and general in dealing with farm mechanics. Farm-shop course outlines and textbooks are plentiful.

If the status of the farm mechanics program is low, it may in part be accounted for by the fact that the research program is not receiving the attention it merits.

This study is only a step in finding the existing conditions and making recommendations for improvement. Much is have not said the last word relative to the exact status of the home-farm shop facilities. It is generally conceded that there is room for improvement. Only a definite study of this problem will answer this question and make possible appropriate recommendations for improvement.

Relatively few data were available indicating just how closely vocational agriculture students parallel their farm-shop activities with their productive project activities.

If and when the farm-shop course of study is changed to meet the needs of the vocational agriculture students, another need will at once arise for teaching aids and devices to handle effectively the new type of instruction.

The importance of teaching management and selection practices relative to farm machinery and equipment has been pointed out. Very little has been done in developing teaching techniques in this field.

No doubt many small bits of data have been collected by vocational agriculture instructors relating to some of the problems that are encountered in their own communities. The collection and summarization of these data would be a contribution to the whole program.

[1] Prosser and Allen, "Vocational Education in a Democracy," The Century Company, New York, 1925, p. 4.

* This is the third and last article on the Montana



## The Community Survey and the Agricultural Program

L. MAX WILLS, Teacher, Waitsburg, Washington

FAR too many teachers of agriculture handicap themselves at the start in a new community by not obtaining a comprehensive and fairly complete view of the agriculture of the new community and its problems. Such a mistake is easy to make and often results when one relies upon the judgment of a few leading citizens of the community, especially when these citizens are only partially well informed on local conditions.

### Need for a Survey

Conducting a carefully planned survey of the agriculture of the community is, to my way of thinking, the best solution to the problem of securing this needed information. The data from a survey must, of course, be supplemented by material from the various agricultural agencies, from the census reports and separates, and from county records. The value of the survey information is that it pictures the actual conditions which are presenting difficulties in the locality and gives indications of how certain farm problems are being solved. Other values incident to the survey are: increased interest of the students as actual problems are faced; an excellent advertising medium for the agricultural department; and a guide to problems on individual farms.

The uses of the survey material may extend to all parts of the agricultural program. The course of study for all-day classes can be based upon problems and actual conditions existing in the community. The F.F.A. program can be built upon needs as revealed in the survey, and evening schools can well be started using the survey as basic study material.

### Developing the Survey

The first problem confronting a teacher who is planning to use a survey is that of deciding how detailed or how general the survey should be and of drafting a list of comprehensive, simply stated questions. In the Waitsburg surveys it was decided that general questions covering practices in the management of farm animals and of farm crops would give a sufficiently clear picture of the community and would be more readily conducted and analyzed. The questions were carefully made out by the students in the two agriculture classes under the supervision of the instructor. The following questions for the beef enterprise will illustrate the nature of the questionnaire; similar forms are being used for the different kinds of farm animals and farm crops.

#### Beef

1. How many cows..... Calves..... Bulls.....?
2. What kinds or breeds of beef cattle do you have?
3. What kinds of pasture are used for beef?
4. How many months a year are your cattle on pasture?
5. Is any special care given to pasture land?
6. How do you winter your cattle?
7. What kinds of beef cattle shelter have you?
8. What cattle diseases are the most trouble?
9. What have you done about them?
10. Do you feed out cattle?..... If so, how many?
11. What arrangements do you have for water?
12. How many of your beef cows do you milk?
13. What are your important problems in beef production?

### Taking the Survey

The number of farms needed in order to secure a representative sample of the total number of farms was then estimated and from that estimate the number needed in each locality was calculated.

For the most part the problem of getting the survey sheets answered and returned promptly was solved by having the boys of the two agricultural classes take the questionnaires to the farms and fill them out from oral interview, the farmer looking at a copy of the questions. This method assured 100 percent return of the sheets and the boys received valuable experience. The balance of the forms were either taken to farms by the instructor or were mailed. The 10 sets which were mailed illustrate the disadvantage of that method of securing information since only four of the 10 were returned despite the fact that a stamped, self-addressed envelope was enclosed. Twenty-two farms were represented in the Animal Husbandry survey and 16 farms in the Farm Crops survey. The total number of farms in the community was approximately 80.

### Uses of the Survey

The value of the survey rests upon the analysis of the information received from the various farms. The first step in making our analysis was to make a tabulation of the survey sheet data. For example, the tabulation sheet shows the number and breed of beef cattle on the 22 farms. Then from the tabulation, sheet graphs and tables are constructed which show relationships, tendencies, and problems which exist in the agriculture of the community.

From a study of the tabulation sheets and the graphs and tables made from these sheets, summaries were written in the Waitsburg surveys for each kind of farm animal and crop. The summaries showed the present conditions in the community and gave suggestion for needed improvements. The suggestion for animal practices included: better bred animals, better housing for animals, better feeding, and more attention to marketing. In the crop survey, suggestions included: slight shifts in acreage so that more alfalfa might be raised and better soil-conserving practices followed. It was also suggested that more feed should be fed to animals, thereby increasing its value by selling it as meat or milk products.

The community farm survey has a number of very definite values which have been previously mentioned. In addition to these values, the enthusiastic co-operation of the farmers in filling out the survey forms, the manifest interest of the students in making the survey, and the class interest in studying it have convinced me that the farm survey is the most valuable aid an agriculture teacher can have in formulating and carrying thru a successful agricultural program.

# Future Farmers of America

A. W. TENNEY

## A Future Farmer Quiz

A. W. TENNEY, Teacher Education, Gainesville, Florida

A FUTURE Farmer Quiz, presented at the State Convention of the Florida Association of the Future Farmers of America, proved to be one of the most popular novelty numbers ever given before that group.

A. W. Tenney

Four contestants were elected to compete in the quiz. State officers were declared ineligible to compete in the contest. The contestants were seated on the stage. The leader of the quiz permitted each of the four boys to draw one of four cards lettered A, B, C, or D. The boys who drew the cards A and B competed against each other and the contestants who drew the cards C and D competed against each other. The winner of the A and B elimination and of the C and D elimination competed in the final contest.

The questions were typed on cards and placed in a hat. Each question was numbered and given a value of 10 points. Each contestant was permitted to draw his own questions from the hat. When a question was drawn, it was handed to the leader who announced the number of the question and then read it slowly so that it might be clearly heard by the contestant and the audience. Questions were alternated between the two contestants. Each contestant was asked a minimum of five questions. When a tie resulted enough additional questions were asked to break the tie.

A clerk kept a record of the contest on a blackboard which could be seen by the audience.

A jury of three teachers of vocational agriculture served as final judges. They were given the power and responsibility to correct any mistakes that might be made by the leader. Jury members were given copies of the questions and answers at the time of the quiz. Members of the jury were not permitted to have contestants in the quiz.

A contestant who answered a portion of a question was given an appropriate number of the ten points. When the leader was in doubt, he asked the jury for its opinion.

At the conclusion of the contest the following awards were presented:
1st place . . . Five dollars in War Stamps
2nd place . . Three dollars in War Stamps
3rd place . . . One dollar in War Stamps
4th place . . . One dollar in War Stamps

Questions were asked in an enthusiastic manner and the audience was encouraged to applaud when excellent answers were given by the contestants. Much interest and enthusiasm was shown by both the contestants and the audience.

The following questions were used. Try the test yourself and see how high a score you can make. Answers may be found on page 118. A few questions pertain to F.F.A. activities within the state. These questions should be changed when used in other states.

### Questions

1. The tallest building in the world is the huge Empire State Building in New York City. The tallest mountain in the world is the famous Mt. Everest in India. The largest airplane factory in the world is the mammoth Ford factory in Willow Run. What is the largest farm boy organization in the world?

2. "In fourteen hundred and ninety-two Columbus sailed the waters blue." In what year was the Future Farmers of America organized?

3. In the preamble to the Constitution of the United States, six purposes are given for organizing the United States of America. How many purposes are there for which the Future Farmers of America was founded?

4. The first of the Ten Commandments given by God to the Israelites was, "Thou shalt have no other gods before me." What is the first purpose of the F.F.A.?

5. The first words of the *Star Spangled Banner* are, "Oh, say, can you see by the dawn's early light"—the first sentence in the preamble begins, "We, the people of the United States of America." What are the first words in the F.F.A. creed?

6. The colors adopted by the University of Florida are orange and blue. The colors in our American flag are red, white, and blue. What are the colors of the F.F.A.?

7. Minutemen of 1775 had a rattlesnake emblem on their breasts with these words under it, "Don't tread on me." What are the words to the motto of the F.F.A.?

8. There are a number of ways to salute the United States Flag, but there is only one Official Salute of the F.F.A. organization. Demonstrate the correct way for Future Farmers to salute the flag.

9. There are many grades of membership in the U. S. Army. A partial list includes private, corporal, sergeant, lieutenant, captain, major, colonel, and general. What are the grades of membership in the F.F.A.?

10. Abraham Lincoln delivered his most famous address at the dedication of the national cemetery at Gettysburg, Pennsylvania. The first Continental Congress met in Philadelphia. Where was the Future Farmers of America organized?

11. Washington is called the Father of our country. Who is generally considered the founder of the Future Farmers of America?

12. Wyoming became a chartered member of the Future Farmers of America in 1930. Mississippi received her charter from the F.F.A. in 1934. When did Florida become a chartered member of the Future Farmers of America?

13. Who was the first Florida boy elected to a national office in the Future Farmers of America?

14. Each chapter makes a program of work each year. What are the major divisions in the program of work?

15. In the opening ritual what should Future Farmers answer when the president says, "Future Farmers, why are we here?"

16. The Florida Association, F.F.A., has taken an active part in the Future Farmers of America. Representatives from Florida have won many prizes and received many honors. Three Florida boys have been elected to the following national offices: vice-president, secretary, and president. Who was the boy from Florida who was elected national president of the Future Farmers of America?

17. It's time for some first-class special music so it now falls your privilege to sing the chorus to "Hail the F.F.A."

18. Of what is the owl symbolic on the F.F.A. emblem?

19. A Future Farmer from Florida competed in the National Public Speaking Contest in 1940 and won it. Who was the lucky boy?

20. Mr. D. J. Howard of Virginia is national treasurer of the F.F.A. Who is the national executive secretary?

21. In 1941 there were 241,113 members in the Future Farmers of America. How may thousand members are there in the Florida Association, F.F.A.?

22. There are 48 states in the union and 67 counties in Florida. How many F.F.A. chapters are there in Florida?

23. Honorable Cordell Hull, Secretary of State, is one of the advisers of President Roosevelt; Mr. J. F. Williams, Jr., of Tallahassee, is adviser of the Florida Association. Who is the national adviser of the F.F.A.?

24. Name the officers of the Florida Association Future Farmers of America.

25. What is the meaning of the sun on the F.F.A. emblem?

26. The New York Yankees have proved to be one of the most outstanding baseball teams of all time. In a single year Bobby Jones won all of the major golf championships in the entire world. What outstanding chapter in the Florida Association has twice won in the National Chapter Contest?

27. Who is *now* national president of the Future Farmers of America?

28. The Bunnell Chapter represented the Florida Association in the National Chapter Contest in 1940. Which chapter represented Florida in this contest in 1941?

29. The National Future Farmer Camp is located a short distance from Mt. Vernon, the home of George Washing-



## Collegiate Group Helps Develop Active Chapters

R. W. CLINE, Teacher Education, Tucson, Arizona

ONE of the main criteria for evaluating the work of a Future Farmer chapter is the scope of member participation in the educational experiences available to the group.

R. W. Cline

During the past several years members of the Collegiate Chapter at the University of Arizona have worked toward the development of new activities for local chapters, some of which are offered during the annual leadership conference and state convention.

A list of 15 items pertaining to the activities and success of the conference was compiled in the form of a score card, and is sent to all chapters well in advance of the annual conference date. During the conference a representative of each chapter uses the score card as a basis for evaluating the performance of his group.

It will be noted that the items in the score card are stated as objectively as possible in order to facilitate accuracy in scoring and thus enable the chapter to use the device for self-evaluation. During the conference, completed chapter score sheets are checked by a committee of students with the assistance of a member of the collegiate F.F.A. chapter who gives recognition to the most active chapters and presents the outstanding chapter with an F.F.A. plaque at the final conference session.

Altho the program has been in operation for several years, it is still in a stage of revision toward the development of a broad range of member participation and self-evaluation on all educational projects conducted by the State Association and the local chapter. The project has also been a great stimulant to the college chapter.

The following is a copy of the score card used at the Annual Leadership Conference for 1942.

### SCORE CARD FOR EVALUATING CHAPTER ACTIVITIES

| | Maximum Points Allowed | Points Earned |
|---|---|---|
| I. Activities to be evaluated by the chapter: | | |
| 1. Percentage of paid-up members | 8 | |
| Number enrolled in Vocational Ag. | | |
| Number of paid-up members | | |
| Percentage of paid-up members | | |
| Points earned on basis of one for each 20 percent of total enrollment paid up | | |
| 2. Number of members attending the conference | 5 | |
| Points earned on basis of one point for each member attending | | |
| 3. Miles traveled to the conference | 5 | |
| One point for each 100 miles or major fraction thereof | | |
| 4. Participation in state parliamentary procedure contest | 6 | |
| 5. Serving on conference committees | 5 | |
| Number of boys serving on at least one committee | | |
| Points earned on the basis of one point per member serving on one or more committees | | |
| 6. Appearance on program | 5 | |
| Number of members appearing one or more times on the conference program | | |
| Points earned on basis of one point for each member participating | | |
| 7. Members applying for State Farmer Degree | 12 | |
| Number of candidates applying | | |
| Points earned on basis of 6 points for each candidate applying | | |
| 8. Member receiving Star State Farmer Award | 5 | |
| 9. Member elected to State Office | 5 | |
| Five points for one or more | | |
| 10. Candidate nominated by chapter, elected to honorary State Farmer Degree | 4 | |
| Four points for each member, including teacher of vocational agriculture | | |
| 11. General contributions of the group to various events on the program, including delegate participation in business session | 8 | |
| Contribution — Estimated Value | | |
| 1. | | |
| 2. | | |
| 3. | | |
| II. Activities to be evaluated by conference committees: | | |
| 12. Chapter annual report (to be evaluated by committee on annual reports) | 8 | |
| 13. Better chapter contest. Report of accomplishments—4 points; scrapbook—4 points (to be evaluated by better chapter contest committee) | 8 | |
| 14. General appearance of group during the conference (to be evaluated by chapter activity contest committee) | 8 | |
| 15. General conduct of group during conference (to be evaluated by chapter activity contest committee) | 8 | |
| Total Score | 100 | |

Chapter . . . . . .

Officer presenting report . . . . . .

is now under the management of the F.F.A. as a part of the Future Farmer camp. Give the name and location of the State F.F.A. camp in Florida.

30. What are the five symbols making up the emblem of the F.F.A.?

31. What is the minimum amount of money a member must earn from supervised farming or other agricultural work to be eligible for the Future Farmer Degree; the State Farmer Degree?

32. How long may a member retain active membership in the F.F.A. after leaving school or after he has quit taking vocational agriculture?

33. What is meant by active membership in the Future Farmers of America?

34. There are 48 states in the U. S. How many F.F.A. Associations are there?

35. Name the Associations which are not a part of continental United States.

36. How many officers should be elected annually by a local chapter?

37. What is the scholarship requirement for the State Farmer Degree?

38. How may a chapter enter the State and National chapter contests?

39. What are the four kinds of membership in the Future Farmers of America?

40. Since the National F.F.A. camp was constructed, it has been managed by a Florida boy who was at one time president of the Florida Association F.F.A. Who is the boy and to what chapter did he belong?

41. How are State winners selected in the State and National chapter contests?

## A Future Farmer Quiz

(Continued from page 117)

**Answer to Questions on Page 116**

1. The Future Farmers of America
2. 1928
3. 12
4. To develop competent, aggressive, rural and agricultural leadership
5. I believe in the future of farming
6. National blue and corn gold
7. Learning to Do
   Doing to Learn
   Earning to Live
   Living to Serve
8. Face Flag and place the right hand over the left breast and hold it there while repeating the "Pledge of Allegiance."
9. a. Green Hand
   b. Future Farmer
   c. State Farmer
   d. American Farmer
10. Kansas City, Missouri
11. Henry C. Groseclose of Virginia
12. 1929
13. Gray Miley of Plant City
14. a. Supervised Farming
    b. Co-operation
    c. Community Service
    d. Leadership
    e. Earnings and Savings
    f. Conduct of Meetings
    g. Scholarship
    h. Recreation
15. "To practice brotherhood, honor rural opportunities and responsibilities, and to develop those qualities of leadership which a Future Farmer should possess."
16. Lester Poucher
17. "Let the cities rise in splendor," etc.
18. Knowledge and wisdom
19. Wayne Poucher of Largo
20. Mr. W. A. Ross
21. Approximately 4,000
22. 131
23. Mr. W. T. Spanton
24. President—Claude Jones
    1st Vice-President—Leabert Smith
    2nd Vice-President—Edgar Lee Johnson
    3rd Vice-President—Oliver F. McKeon
    4th Vice-President—Bill Steve Roberts
    5th Vice-President—Maxwell Railey
    6th Vice-President—Jack McMullen
    State Adviser—J. F. Williams, Jr.
25. "The Rising Sun represents the dawn of a new era in agriculture."
26. Homestead
27. Irwin J. Schenck
28. Pahokee
29. Camp Oleno, near High Springs
30. Rising sun, owl, ear of corn, plow, and the American eagle
31. Future Farmer Degree—$25.00
    State Farmer Degree—$250.00
32. Three years
33. An active member in the F.F.A. is one who pays his dues, attends meetings, and participates in the activities of the chapter.
34. 47
35. Hawaii and Puerto Rico
36. Seven
37. Upper 40 percent in scholarship in all school subjects during entire period of secondary school instruction completed at the time of application for the State Farmer Degree.
38. By preparing a chapter program of work and submitting it to the State Adviser.
39. Active; Associate; Collegiate; Honorary
40. E. D. Tyler of Sanford Chapter
41. Each chapter prepares and submits an accomplishment report which is rated by a standard score card.

## A Clinical Technique

(Continued from page 107)

factors that are significant. To accomplish this, the candidate is asked to fill out the personal data form, the farm experience form, and take the scholastic aptitude, achievement, special aptitude, and personality tests included in the special test battery for agricultural education freshmen. Time for doing this does not average over 10 hours of the student's time. The results of the test battery are brought together in comparable scoring units (percentile ranks) on a profile or psychograph, which serves in assisting the teacher-trainer in obtaining an objectified pattern of the individual's capacities that relate to the factors in question. As in all clinical work, one must keep in mind that the enumeration of quantitative scores on the profile should not be used in isolation nor interpreted without a knowledge of the complete record of the student.

All of the above information is kept in a student folder, and the complete test data are studied in relation to the criteria selected as being factors in successful agricultural teaching. This might be considered as the diagnosis from which a generalization describing the candidate's characteristics may be made; and is essentially a search for a pattern which will form a basis for formulating the judgment of the teacher-trainer as to the possibility of the individual's success as a teacher of agriculture. Thus these tests are used in the refinement of the final judgment based upon all the data in the case study of the candidate in question. The teacher-trainer passing on the merit of admitting a candidate into the agricultural education curriculum has his judgment fortified materially thru this technique.

### Advantages of the Plan

A merit in the plan of the agriculture teacher-training program at Minnesota, where the student enters tentatively into agricultural education upon enrollment, is the relatively extended period in which to study and guide the student. Thru the technique as outlined above, three classifications of candidates may be determined: (1) those who have high probability of succeeding as agriculture teachers and will be encouraged to continue in the agricultural education curriculum; (2) those who obviously do not have the necessary scholastic and personal qualities necessary for successful pursuance of agricultural teacher-training and the occupation, and who therefore are guided into alternative fields in which the individual is more likely to be successful and find satisfaction; and (3) those who have no clear-cut physical, emotional, or scholastic disabilities for agricultural education but who, on the basis of the evidence, could profit from individual assistance and guidance in the selection and guidance of subjects and activities that will enable them to become better teachers than they now indicate.

While this technique is at present used in agricultural education at Minnesota, it is still in the process of study and development. We believe from its usefulness so far that it has distinct potentialities in improving the selection and guidance of trainees in agricultural education.

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## A Recipe for a Good F.F.A. Chapter

*Ingredients:*

Interested members (about three dozen good eggs, not hard boiled)
An intelligent, well-trained group of officers
A helpful adviser
A challenging program of work
Smooth functioning committees
Adequate paraphernalia in chapter room

*Mixing:*

Mix with a barrel of fun
Use plenty of common sense
Add a generous amount of diligence, service, far-sightedness and co-operation
Use an unlimited supply of tact
Add equal amounts of pull, push, and pep

*Method:*

Use a light but firm hand and stir with enthusiasm
Sweeten members occasionally with ice cream and cake
Keep members in a warm atmosphere of fellowship and cordiality
Introduce new ideas and allow to simmer
Season, each year, with an annual banquet, a barbecue, and a camping trip
Mix all ingredients together thoroly so that each member may be trained and service rendered
Let others enjoy the aroma by means of good publicity
Keep essential records so the recipe may be maintained and improved

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Agriculture is as much a war industry as the manufacturer of war materials. Proper food is necessary for an efficient tough army and a strong civilian population. Food also is one of the prime requisites for that intangible essential in wartime—high morale.—*American Fruit*

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