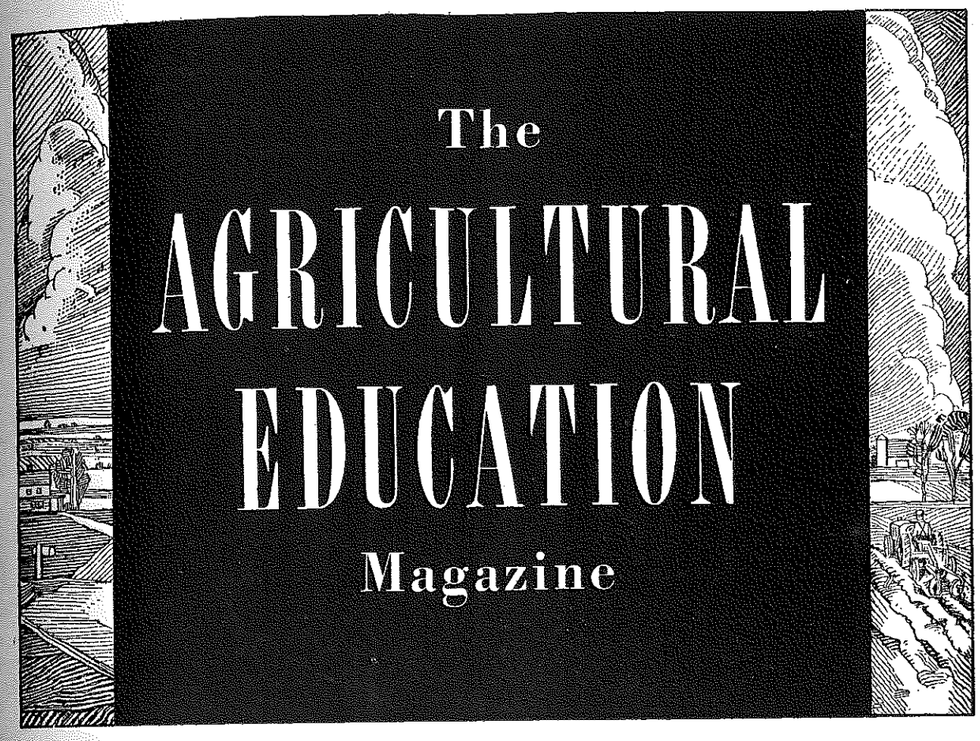
Vol. 13 April, 1941 No. 10



THINKING is terribly hard work. But there is a contagion about thinking. Like most work, it goes best when you work in a crew. The discussion method of thinking things out together trains the mental muscles and makes the job go further.

—Claude R. Wickard

VOCATIONAL AGRICULTURE
For
TEACHERS
Teacher-Educators
And Supervisors
OFFICIAL PUBLICATION

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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Subscription price, $1 per year, payable at the office of the Meredith Publishing Company, Des Moines, Iowa. Foreign subscriptions, $1.25. Single copies, 10 cents. In submitting subscriptions, designate by appropriate symbols new subscribers, renewals, and changes in address. Contributions should be sent to the Special Editors or to the Editor. No advertising is accepted.

Entered as second-class matter, under Act of Congress, March 3, 1879, at the post office, Des Moines, Iowa.

CONTENTS

Editorial Comment

Our Chief Retires

J. A. Linke

"BACK Home Again in Indiana" has come to be more to the workers in agricultural education than just a sentiment expressed in a song. To them it now becomes the place of abode of their beloved and respected "chief," John A. Linke, who has retired, retired to his Indiana farmlands and home.

When the Smith-Hughes Act was passed in 1917 and the Federal Board for Vocational Education, created by it, began to organize a professional staff, it did not take them long to discover that out in Indiana there was a man by the name of John A. Linke perfectly patterned for a place upon it. By training and experience, by thought and by deed he met the specifications ideally.

From that day to this he has been "loyal and untiring in his devotion to the cause of vocational agriculture." We have no better proof of this than is found in the manifestation of esteem held for him by his co-workers in the North Central Region, with whom he worked so long and intimately before he became "chief" for the whole United States, when they presented him with a life membership in the American Vocational Association in March, 1930.

In commenting upon this happening the American Vocational Association News Bulletin of May, 1930, expressed a sentiment of regard that still rings true, when it said: "He has been a kindly, sympathetic leader, optimistic and unselfish, liberal and tactful, a man with whom men could deal. The North Central Region esteems it a rare privilege to do homage to him."

Today, states and territories, teachers and pupils, directors, supervisors, teacher-trainers, and countless friends thruout the entire United States write in seconding that expression of sentiment and rise to acclaim what he has done as a leader among them.

FROM this same A. V. A. publication of May, 1930, we learn that "Mr. Linke was born on a farm in Bartholomew County, Indiana, on March 6, 1871. It was his good fortune to have a father and mother who were interested in seeing their children receive an education. As a consequence Mr. Linke has been in school all his life. He graduated from the graded schools of the county and then for six years was a teacher there. In 1897 he graduated from Hope Normal School at Hope, Indiana. He enrolled in Indiana University that fall and during the next seven years 'taught and was taught' to the extent that he was granted a Master's Degree in education in June, 1904. From the fall of 1903 until June, 1913, Mr. Linke served successfully as superintendent of schools at North Salem, Brownstown, and Seymour, Indiana. In September, 1913, he enrolled in the School of Agriculture at Purdue University and graduated two years later. He was immediately taken into the Extension Department of Purdue University as an assistant to Dr. Z. M. Smith and remained with him until taking up his present duties in October, 1917.

"John A. Linke has the love and respect of those who work with him. We doff our hats to him and wish him well."

From October, 1917, until December 16, 1934, Mr. Linke served as regional agent for agricultural education in the North Central Region. On the latter date he was promoted to chief of the Agricultural Education Service and as such has since had responsibility for the entire vocational agricultural education program thruout the United States. From this office he retired officially April 1, 1941, to his aforementioned home, and his many friends may reach him there in Columbus, Indiana.

Mr. Linke may have retired, but those who have worked with him long testify to the presence of his spirit among them. The things he did for vocational education in agriculture will live long to mark where he has been, and thousands of Future Farmers of America will become a living testimony of his greatness.

Who Is Thinking?

WALK past a school classroom. Who is talking? The chances are two to one that it is the teacher rather than the pupil, according to a study reported recently by a professor of the University of Chicago. He has found that teachers ask nine times as many questions as pupils do and that some ask them at the rate of 100 per hour. Let us hope that no teachers of agriculture were included in his survey.

A superintendent of schools once collected a large number of questions from teachers and pupils. He shuffled the questions and asked teachers to indicate which questions were good and which were poor for purposes of teaching. The pupils' questions ranked higher than those of the teachers! Why not let pupils ask more questions and do the thinking of which they are capable?

Today, as never before, farmers are faced with difficult decisions. The thinking they do on crucial problems may determine their success or failure. It is the responsibility of teachers of agriculture to improve the thinking of farmers and future farmers. How can they do this if they do not know what farmers or future farmers are thinking? When the teacher is talking he is doing the thinking, not the farmer. When he asks questions at the rate of one a minute he, not the boys or the farmers, is doing the thinking.

It should be especially easy for a teacher of agriculture to avoid verbalizing. His pupils *could* be working with living plants and animals. They *could* be working to find the answers to actual, existing problems that perplex them. Teaching based upon farming programs will help to avoid verbalizing and will provide an opportunity for pupils to think on problems facing them, and to be guided in this thinking process.

Not Enough Departments

IN A recent article in *School Life*, Walter H. Gaumnitz, Specialist in Rural Education, U. S. Office of Education, refers to a study made of the offerings in 1934 of 1,238 representative high schools in rural communities. This study revealed that "fewer than one half of even the largest rural high schools provide instruction in agriculture" and that "of schools enrolling fewer than 40 pupils, usually one out of five offers instruction in this field which could have most important value to the farm youth." This, of course, includes non-vocational as well as vocational courses. Apparently we are far from the saturation point in agricultural education.

Your Task and Mine

"RURAL youth in general think carefully and soundly. They can be depended upon to reach sound conclusions. In this time of great stress and strain thruout the world, this time when sharp differences of opinion arise, for example, the question of feeding the hungry in occupied areas of conquered countries in Europe, it is important that rural youth—all youth—be helped in their efforts to gain full understanding of the issues involved. This is a part of your task and mine—to help farm youth see and understand their responsibilities in respect to conscription, serving in industry, continuing in agriculture, maintaining individual health, keeping right attitudes toward their duties wherever they may lead. Duties such as these should be given top rank in the program of all persons in positions of responsible youth leadership."—H. C. Ramsower, Administrative Assistant, Advisory Commission, Council of National Defense.

"The challenge to democracy today is so threatening that we should be careful not to waste our time or strength in needless differences or disputes. We need a united front to see to it that agriculture does not go thru the wringer during and after this war."—Claude R. Wickard

A. M. FIELD

Methods

Methods of Developing Ability to Finance a Farm Business*

Management of Capital, Owned and Borrowed, as a Phase of Establishment in Farming

H. H. GIBSON, Teacher Education,
Corvallis, Oregon

H. H. Gibson

DEVELOPING ability in young farmers to finance the farm business is an objective that needs to be considered in a broad way by instructors in vocational agriculture. Too often, financing a project enterprise or a farm business is studied as a single and separate job; whereas farm financing should be considered as an aspect of planning and developing every phase of the entire farm business. For instance, no boy should construct a self-feeder for his hog project without comparing self-feeding and hand-feeding under his particular conditions as to costs, economy in the use of labor, and feed required to produce 100 pounds of pork.

Financing Includes More Than Borrowing

Again, farm and project financing may be thought of too superficially and exclusively in terms of *borrowing* capital —sources of credit, low interest rates, methods of securing and repaying loans. In the proper place and order, these are important considerations, but they are secondary. The *management and use* of capital is the major consideration in developing ability to finance a farm business; and, first of all, the management and use of *capital already owned* or available, rather than capital that may be borrowed. It seems to be the temper of the times to think that the immediate and perhaps only way out of financial difficulties is thru borrowing capital or credit. It will be unfortunate if we develop this attitude in beginning farmers. Occasionally an instructor seems to take a defeatist attitude regarding the possibilities for successful projects because the farms on which the boys are living are small and unprofitable, and he therefore assumes too quickly that the boy must either select and continue a makeshift project in some unprofitable farm enterprise, or else that the only way out is to borrow enough money outright to set him up in a new project enterprise. If the project program is sound and the boy dependable, there should be no hesitation about borrowing needed capital; but the sound approach to the answer of the question "Should capital be borrowed?" is thru a careful analysis and study of the use being made of capital already owned or available. "Will borrowing capital increase the earning capacity of the farm and the capital the farmer or boy now has?"

It is my observation that most young farmers, whether enrolled in high-school agriculture or in out-of-school groups, are living on farms where they or their parents have capital in some form—land, stock, equipment—already invested. If they do not finally become established on the farms where they are now living on a rental, partnership, or ownership basis, they will at least accumulate savings, stock, or equipment which they can trade, sell, or transfer to some other farm where there is greater opportunity for advancement.

In any case, an inventory and analysis of the various forms of capital already owned or invested in the farming business where the boys are now located should be the first step and approach to a sound system of training in financing.

Important Questions

What returns are coming from the capital invested? What are the cash-operating and other costs? What is left for the investment in capital and labor? Are the returns sufficient to cover interest charges, to pay something on principal, and to allow for the usual hazards that accompany the investment of capital? Before capital is borrowed, such questions regarding capital already owned should be answered. Otherwise, the young farmer may be adding good money to that already being invested and managed unwisely. Two examples may serve to make this viewpoint clearer.

First, let us take the case of a boy in high-school agriculture. He is living on a farm included by the Soil Conservation Service in a problem area. In fact, most of the rural boys in his high-school community are living on farms so classified. The size of the farm is approximately 100 acres, of which 50 or 60 acres are cleared and cultivable, and the rest is in timber, cut-over land, and brush pasture. Small grain and hay crops have been grown since pioneer days until now, it is said, the soil is so poor that oats and possibly certain varieties of vetch are the only crops that can be grown. These crops, together with wild native pasture, can now supply the feed for only a few cows and a small flock of sheep. A few chickens supply eggs for home use and bring in a small cash income. A casual survey of the farm situation does not hold out very bright prospects for a project. Selection and continuation of a project in enterprises of the kind and quality already found seem questionable; and borrowing money to invest in new ventures is naturally looked upon with considerable skepticism by parents already in debt and back five years with their taxes.

The Present Inventory as Starting Point

But what is the real problem and what is the answer? First, a careful survey and inventory of land, stock, equipment, etc. at current prices and values is made. This shows that approximately $5,000 in capital is already invested. The instructor, boy, and parents together make a careful analysis of investments, costs, and returns on capital. Can the capital invested be made to yield a larger return? For instance, can better returns be made on the capital already invested in the land? Possible new and better adapted enterprises are considered. Strawberries, which are found to grow on somewhat acid soil, seem feasible. Budgets are carefully worked out covering all possible costs, cash and non-cash, for these new and adapted enterprises, and net returns from these enterprises are compared with those from farm crops now grown.

The proposed project enterprises and the revised farm setup, together with budgets, are now discussed from every angle with boy and parents, and finally agreed to. A written financial agreement, including rental of land, is drawn up and signed by both boy and parents. Since the parents have no money for financing the project, the Production Credit Association supplies a small amount of cash for commerical fertilizers and other items. A canning company, located in another community, is willing to sign a contract to purchase berries, and agrees also to supply certified plants and to take payment for them when the berries are marketed. One acre of berries, producing 3,000 pounds, selling at five cents per pound (the lowest price the boy has received) made a gross return of $150. And in addition, certified plants sold from this acre brought in $151. Consequently the enterprise was expanded and a crop rotation plan was developed, including cover-cropping in order to prevent soil erosion and to increase organic matter and soil fertility—the most important factor in increasing yields and reducing costs in strawberry production.

This is training in farm financing. It involves the analysis, management, and use of capital already owned with a view to increasing the yield on capital already invested in land. A small amount of capital was borrowed for fertilizer after the need was clearly recognized and as a means of increasing the earning capacity of capital already owned.

Better Management of Capital Already Invested

Following up this case still further, a careful analysis of the dairy enterprise was made. This brought out two serious weaknesses. First, too many acres of pasture and crops were required to supply necessary feed, and second, the cows were yielding scarcely enough butterfat to pay for their feed. Again, the problem proved to be largely one of better management of capital already invested in land. A small stream running thru the farm was diverted by gravity for irrigating and establishing four or five acres of new pasture. To help prepare the seedbed, a log roller was made from a tree standing near by and from irons made in the farm shop. And from the same sources a drag was made.

Next, as a means of supplying more feed, some marginal and badly eroded hill land too poor for growing strawberries was seeded to new and improved pastures. Wild volunteer pasture and weeds were supplying only a little feed, while the improved pastures have greatly increased the carrying capacity for sheep and young dairy stock. A field of chewing fescue, with the use of commercial fertilizer, produced 100 pounds of seed per acre. This is not a large yield, but a part of it was sold at 50c per pound and the rest was exchanged for other varieties of seed grown by F. F. A. boys as a means of making up a suitable pasture mixture. Again, this is training boys in using capital already owned. The original investment in land was not increased, but the same investment plus some labor and a little borrowed capital is now yielding a good return.

But there seems to be no way of making good cows out of poor cows to start with, so some cash was used to purchase a few heifer calves whose dams had a production record of not less than 350 pounds; in fact, one heifer calf was purchased from an interested dairyman for $25, whose dam had a record of 750 pounds B.F. These heifers are now in production with a B.F. yield far above the average.

A Mistake in Buying a Truck

As the project developed, the back taxes on the farm were paid, and soon the boy began to feel that he was in the money; so much so that without consultation with the instructor he decided to buy a new pickup truck to market his farm products. Again the instructor suggested that the boy make a careful analysis of this investment. "How long will it take you to pay for the truck out of the earnings from the farm and your projects? How much will the truck increase your actual farm income?" The boy began to regret his bargain and together they called on the automobile dealer and got his consent for the boy to return the truck. The boy then remodeled his old automobile into a pickup as part of his shop work and seemed to take as much pride in this as he did at first in the new truck. Now this is primarily training in the use and management of *capital owned*, and it is the sound approach to the determination of what capital it may be wise to borrow for investment in the farming business.

"Will This Farm Be a Good Purchase?"

And now for an example of how training can be given in farm financing thru the use of problems primarily involving *borrowed capital* for the purchase and operation of farms. This is the case of an out-of-school, and recently-married young farmer who is thinking of buying the 100-acre farm which he is now renting and which is priced at $8,000. "Would this farm be a good purchase?" was one of the first questions he asked in conversation with the trainees on their first visit. A trainee who had had considerable work in the department of Farm Management and in making farm organization studies and plans was assigned to work with this young farmer thruout the year. (At Oregon State College, each trainee is paired off and teamed up with at least one out-of-school young farmer in part-time classes, with whom he works thruout the year as a phase of the teacher-training program.) "Would this farm be a good purchase?" was naturally a question which required, for a satisfactory answer, the consideration of many factors and the collecting of numerous facts that had to be evaluated.

Eight visits, some as much as a half-day in length, were made to map and survey the farm, and for conference with the individual farmer. Facts were assembled that would aid in deciding whether the farm might be a good purchase, and also in developing revised farm organization plans in conference with the farmer, plans which could be used in case he either bought the farm or continued to rent it. Irrigation possibilities, soil needs, soil tests and treatment, and the introduction and selection of new crop enterprises were other things considered.

The Problem Is Taken Up in the Young-Farmer Class

Since the young farmer's question, namely, "Would this farm be a good purchase?" was typical of those a good many farmers were asking, it was carried over into the regular weekly conferences. The student teacher assigned to this young farmer naturally served as class-conference leader for this farm study. The following steps and problems were taken up in the weekly conference meetings:

(a) With the help of the young farmer, the conference leader brought up the question, "Would this farm be a good purchase?" A map of the farm and charts giving important farm survey data were presented. The group then discussed the question of how to place a fair value on the farm. Instead of lumping the farm together at so much per acre, the acreage of each soil type was determined; phosphorus and acidity tests were made; and soil profiles were studied. Information on farm and crop history was brought out in conference. The class members gave reports of their observations on this farm over a period of years. Acreage in roads, waste land, and brush land was determined. Finally a value was placed on the acreage of each soil type. In this connection, the conference leader presented survey charts showing the comparative costs and profits from farms with different soil types and fertility in Oregon and other states. Other factors and conditions, such as irrigation possibilities, roads, markets, buildings—things that might enhance or decrease the value of the farm—were considered in arriving at a final estimate of the market value of the farm. In fact, this study was used also as a means of setting up a score card for judging farms and for making field trips later for this purpose. The group finally placed the value of the farm at somewhat less than $8,000, the owner's asking price.

(b) "But," said the young farmer, "I am still interested in this farm. I like the location and the community." The question was then raised, "Suppose you do buy the farm, could it pay for itself out of the income? First of all, could the farm pay for itself out of earnings now derived from your present methods and type of farming as a renter?" The answer to this question led to a study of the present farm setup and the working out of enterprise-production, income statements, showing gross and estimated net farm returns. After carefully estimating the cash-operating expenses and deducting them from the gross income, and allowing the operator a wage of $50 a month (being just married, he said this was the least he would want to get by with), it was found that the amount left would hardly return three percent on the purchase price of $8,000. Hence it was seen that the farm, as he now managed it as a renter, would not be able to pay even the interest on the purchase price of $8,000, to say nothing of paying off the principal.

(c) "But," again said the young farmer, "if I owned this farm, I would farm it differently than I do now as a renter." So the question was then raised, in case he should buy the farm, as to whether a different type of farming and farm organization plan could be worked out that would give reasonable promise of bringing in an income large enough to pay for itself out of earnings. In this connection, a number of new enterprises were considered as to their adaptability to this farm. Since the farm was not large and irrigation easily possible, intensive enterprises such as strawberries, filberts, and irrigated pasture for a dairy herd were considered. Two trial reorganization plans, with modifications to suit the farmer, were worked out. It was then conservatively estimated that the possible returns, under the revised farm plans and assuming average long-time yields and prices, would be large enough to realize approximately eight percent return on the purchase price of $8,000—returns large enough to cover interest and leave something toward payment of the principal each year. However, the young farmer did not seem to like some of the enterprises that were best adapted to the soil on this particular farm. So the farmer as well as the farm had to be considered in the last analysis.

(d) The next question to be raised was: "Where and how best to borrow capital or secure credit to purchase the farm?" Making use of the survey information and analyses already obtained, abbreviated land-bank, farm-appraisal forms were used in accordance with the usual land-bank, farm-appraisal procedures. Special attention was given to the soil as a permanent long-time factor, and to the earning capacity of the farm —things that would be given most consideration by the Farm Credit Administration in making loans. Conservative estimates were made of the amount of land-bank and commissioner's loans that might be obtained. Interest rates, conditions, and provisions for securing and repaying loans were brought out. Advantages and disadvantages of Farm Credit Administration and other forms of loans were compared. Advice was given to consult local land-bank ap-

praisers to determine probable size of loan that might be obtained before buying a farm. The young farmer is still renting this farm but hasn't dismissed the possibility of eventually buying it. In any case, he now has the facts on which to make the final decision. Farm plans have been worked out in conferences with him which can be used, with modifications, whether he decides to continue renting or decides to buy the farm. All members of the class, too, have obtained facts and knowledge of procedures that can be used in buying or renting farms, in improving the organization of their own farms, and in financing the farm business.

Steps in Financing

These are only two examples among many that might be used to illustrate how farm financing becomes an aspect of almost every problem confronting young men in getting started and established in farming, and in managing and operating the farm business. Individual visitation and conference is the basic approach to the discovery of farm financing problems and in developing the ability to finance the farm business. But these individual problems, with tact and consideration for personal feelings, can be brought up and studied in class conferences with great profit to all, including the individual directly concerned. Observation and experience show that in working out these problems in farm financing the following phases or steps will eventually be covered in systematic instruction in one form or another:

1. An inventory, survey, and analysis will be made of the forms of capital investment, including income, costs, and returns for capital and labor. In developing a long-time program, this step is as necessary for boys who are selecting and organizing project programs as it is for out-of-school young farmers.

2. Thru the use of budgets, it will be determined whether any better use could be made of capital already invested in land, stock, and equipment thru introduction of new enterprises or types of farming, and what, if any, borrowed capital could be used to advantage in renting or buying additional land or equipment. The budget is a superior teaching device for discovering and locating problems in their natural relationship to each other, and in relation to costs and outcomes. The budget will show what capital may be needed to finance the business, and will give a basis for making financial arrangements and agreements.

*Based on an address delivered before the Agricultural Section of the A. V. A. at San Francisco, Dec. 18, 1940.

Book Review

Practical Farming for Beginners, H. A. Highstone. 199 pp., illustrated, published by Harper & Brothers, New York, price $2.50. This book is written by a city man who has made good on a "subsistence" farm, and is addressed primarily to the city man who is convinced that he will be better off earning his livelihood from the land. The term "subsistence farming" as used by the author is not to be defined as farming for a bare existence, but rather as farming which results in complete independence on the land. Information is offered on the choice and purchase of land, selection of crops and livestock, purchase and care of equipment, methods of management, budgeting, etc. The appendices carry short, meaty articles on many basic farm problems such as lighting, sewage, water supply, buildings, equipment, etc.—A.P.D.

They Learn by Demonstrating

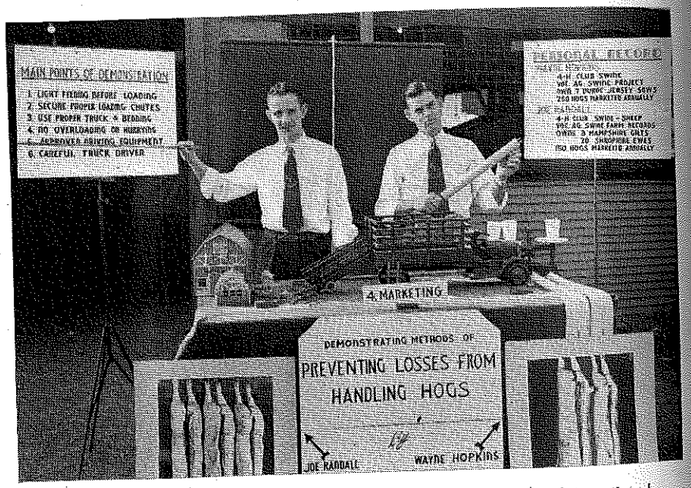
W. C. FISH, Teacher, Carmel, Indiana

THE problem of training rural youth in departments of agriculture is being attacked by many different methods and procedures, many of which have practical experience as their main nucleus. The students must have or acquire a favorable attitude toward both the material presented and methods used in presenting it, before any instructor can hope to be successful.

Demonstrations may become a very important part of classroom teaching, since they make the job more interesting, attractive, and real. They should first be used by the instructor in order to develop the proper procedure to follow in building up and putting over the desired point. Demonstrations may be used in almost all types of teaching units. After students have become familiar with them, they are particularly adapted to farm-shop jobs and practical units connected with supervised farm practice projects.

In the Carmel department of vocational agriculture demonstrations are not looked upon as competitive activities. Instead, a customary teaching procedure is for each student to demonstrate and explain to the rest of the class the particular type of job that he is doing at that time. This method places much more responsibility upon the students and, after a little practice, they become more self-assured and thoro in all their work.

Naturally the experience and practice obtained by each student in his everyday classroom work develop good material for competition in the various types of demonstration contests. The Carmel department made a tour of the Indianapolis Stockyards and Kingan's Packing Plant. The group was very much impressed by the excessive loss due to unnecessary bruises and injuries inflicted upon the livestock in marketing. It was that spark of inspiration that started the Carmel demonstration team on its winning career.



Demonstration team from Carmel, Indiana, winners at the 1940 International.

Several of the students worked up demonstrations on bruise-prevention, and the principal of Carmel High School, the county agent, and the local instructor acted as judges. The two boys who showed the most ability and initiative were selected to represent the Carmel Chapter of F. F. A. in the various contests. The boys spent much time in research and obtained some very startling facts as to the losses suffered by the local farmers in the marketing of their livestock. The team gave its demonstration many times at farm bureau meetings, Lions club meetings, and various school functions. The team has been successful in winning district and state contests.

As coach of the Carmel demonstration team and at the end of my first year of teaching in a newly established agriculture department in central Indiana, I would list the advantages of demonstration work in our department as follows:

1. Aids greatly in making the daily routine interesting and comprehensible.
2. Develops self-assurance and ability to express one's self on the part of the student.
3. Serves as a worth-while school activity.
4. Gives the good students a chance to expand their ability and initiative.
5. Serves as a very good way to stimulate interest among the younger students.
6. Educates the public as to the type of work being done in the department.

Using a Survey in Determining Course Content in Farm Mechanics

A. D. LONGHOUSE, Teacher Education,*
Morgantown, W. Va.

A. D. Longhouse

EVERY program in farm mechanics should be based on the needs of the boys in the classes. The only sure way of determining these needs is to survey their home situations, and first of all determine the needs of these boys in their supervised practice programs. The program of farm mechanics must be correlated with the rest of the activities in the department and with each boy's supervised practice program. A summary of the survey will usually bring out many factors or conditions which even the teacher with long service in the community was not aware of at the time. Needless to say, the beginning teacher or an experienced teacher moving into a new community can profit materially by surveying his school area.

Today the farm boy must become mechanically minded, and sufficiently skilled in mechanics so as to repair his farm machinery and buildings and to continually strive to improve the home surroundings. In order to do all this he must have a place to work and sufficient tools with which to work.

With the above points in mind let us take stock of what we would want to include in a survey. First of all, we want to know about the status, or present conditions in the home and on the farm. Is it served by electricity? Does it have running water and an adequate sewage disposal system? Do the buildings need painting? Is there a home-farm shop, and is the farm machinery kept under cover when not in use? Many more questions might be asked, and all of them should be brought out in the survey. For convenience, then, the survey may be divided into four parts: the home situation, farm machinery and equipment, shop tools and supplies, and the home-farm shop. Expanding these units, a survey form similar to the one shown might be developed.

Since the teacher is primarily concerned with the boys in his department it would only be necessary for each boy in his classes to fill out a form, rather than to try to survey all of the farms in the school area.

Directly following the list of farm machinery two questions were asked: "Do you have any farm machinery you do not need and would like to sell?" "List the used farm machinery you would like to buy." At first thought one may think these questions irrelevant, but on the contrary I find them quite useful. Perhaps I can best justify these questions by saying that it is a means of aiding farmers in the school area to find a machine they want to buy that another farmer wants to sell. It has an added value to the boys in the part-time classes. These boys are on the verge of becoming established in farming. They are taught how to develop a sound farming program, but in most cases we have overlooked the fact that these boys need equipment in order to carry out the farming program. If, by means of this survey, we can locate second-hand equipment which the part-time boy may often purchase cheaply, and can bring into the farm shop and repair it, we have accomplished something.

*Mr. Longhouse is now on leave of absence in Washington, D. C., as Special Representative for National Defense Training in the North Atlantic Region.

FARM SHOP SURVEY

Department Making Survey.....

Name.....Address.....
Date.....Distance from department.....
Size of farm (acres)..... Type of farm (dairy, poultry, etc.).....
Do you have electric power? (yes or no).....
If so, give source: home plant..... or central power.....
Do you have running water in the home?..... Barn?.....
Source of water supply: spring...., shallow well...., deep well...., cistern....
If you have running water check source of power:
Hydraulic ram..., windmill..., electric pump..., gas engine..., or gravity...
Is the water supply adequately protected at the surface to prevent surface seepage?...
Do you have a sewage disposal system in the house? (yes or no).....
Type of system: septic tank....., cesspool.....
Type of construction: brick....., concrete....., steel.....
Do you have a distribution system leading away from the tank?.....
Is there a complete bathroom in the home?.....
Is there a hot water system in the home?.....
Source of heat: coal...., wood...., electric...., gas...., or oil

FARM MACHINERY SURVEY

(Write in the number of each implement owned)

.....Walking cultivator	.....Disk harrow	.....Gang plow
.....Walking plow	.....Grain drill	.....Sulky plow
.....Wagon	.....Grain binder	.....Spring harrow
.....Spike-tooth	.....Corn binder	.....Spike harrow
.....Combine	.....Corn planter	.....Roller
.....Corn sheller	.....Corn sheller	.....1-row cultivator
.....Wood saw	.....Cultipacker	.....2-row cultivator
.....Hay loader	.....Rotary hoe	.....Corn elevator
.....Hay rake	.....Hay rack	.....Grain seeder
.....Binder	.....Gravel bed	.....Fanning mill
.....Mow machine	.....Truck	.....Mower
.....Power sprayer	.....Auto	.....Hay loader
.....Lime spreader	.....Tractor	.....Cream separator
.....Weeders	.....Gas engine	.....Brooder stove
.....Potato grader	.....Tractor plow	.....Manure-spreader
.....Wagons	.....Tractor disk	.....Feed-grinder
.....Spring-tooth harrow		

List below the farm machinery you do not need and would like to sell:
(Space provided for 12 items)

List below the used farm machinery you would like to buy:
(Space provided for 12 items)

THE HOME-FARM SHOP

Do you have a home-farm shop? (yes or no)..... If so, give location (garage, horse barn, etc.).....
Is the shop heated (yes or no)..... How is it heated?.....
Do you have electric lights in the shop? (yes or no).....
What is the approximate size of the shop? Length.....ft. Width.....ft.
What kind of floor does the shop have?.....
Do you have available space for developing a farm shop? (yes or no).....
Where?.....
Do you have a shed for the machinery? (yes or no).....
Does the machinery stand outdoors? (yes or no).....

Check the units or kinds of work you are equipped to do in your farm shop:

.....Farm carpentry and painting	.....Blacksmithing
.....Saw fitting	.....Cold iron work
.....Tool fitting	.....Farm power machinery
.....Harness repair	.....Rope work
.....Farm electricity	.....Surveying (leveling and draining)
.....Farm machinery repair	.....Soldering and sheet metal
.....Farm concrete	.....Horseshoeing
.....Farm plumbing	

In addition to these items, 149 farm-shop tools are listed with a space opposite each in which the farmer can check if he has the tool.

Supervised Practice

H. H. GIBSON

Placement for Farm Experience in Vocational Agriculture

CARLTON E. WRIGHT,[1] University of New Hampshire, Durham, New Hampshire

C. E. Wright

THE productive-enterprise program for the farm boy has long been accepted as the core or center of supervised farming activities. This has developed from the annual "project" into the long-time program, expanding and developing thru four years of vocational agriculture, on into part-time work, to ultimate establishment in farming. The literature reveals how these programs have been developed and illustrates the advances made in supervised farming activities.

To enrich the program and improve the individual and his surroundings, the improvement project and the supplementary farm practices have been developing for several years. Now the point has been reached when we think of a program as being decidedly lacking if the boy does not plan and execute these additions to his productive enterprises. Special attention has been given by the U. S. Office of Education to this phase as a broadening aspect of the farming program of the boy. For all our farm boys this is the best procedure for grow-into farming.

What of Boys From "Part-Time" Farms?

We have another group of young men similar to the above, but who do not have so good an opportunity to get started and whose program will, of necessity, be smaller and somewhat curtailed on account of poorer facilities, less parental backing, and lack of capital. These are boys who live on small or part-time farms, or who live on a "place" outside the village. However, in spite of handicaps and difficulties of one sort or another, the boy is able to launch and conduct a long-time program on a limited scale but of at least challenging proportions. To substitute any other type of program for boys in this group would be wrong and would not get them started in farming as soon or as satisfactorily as they should be.

Let us focus our attention on a third group. This includes the so-called "village boy" really interested in agriculture, the boy who lives outside the village but not on a farm and with poor facilities for farming, the boy who has not had much agricultural experience, or the boy from a family with little financial backing. If such boys as these conduct productive enterprise programs, they do so on such a small or unsatisfactory scale that it is scarcely worth reporting. Makeshift productive enterprise programs still appear in the reports.

Is there any agricultural department which at one time or another has not had this type of boy with whom to deal? Should a boy be barred from taking vocational agriculture because he lacks finances or because he lives in the village, provided he is *genuinely interested in agriculture?* The Smith-Hughes Act states, "... that such education shall ... meet the needs of persons over 14 years of age who have entered upon or who are preparing to enter upon the work of the farm or of the farm home." Farm placement may be offered as a satisfactory program for these fellows. This means being placed on a good, commercial farm where experience gained will be good. Practices observed and participated in will be not only man-sized but also practical.

Farm Placement May Solve the Problem

Farm placement is recognized in vocational agriculture as being an acceptable form of supervised farming. There are two types of opportunities to consider, namely, those which afford the boy a chance to work for experience and, at the same time, develop an ownership program in productive enterprises; and those where the boy works "on placement" for experience and wages only. Altho the latter group concerns us here, I should like, briefly, to mention the former.

Several years ago an article appeared in *Agricultural Education*[2] which told of a village boy with little opportunity to conduct a farming program. This boy went to work for a good dairy farmer whose son had gone away to college. The boy moved out to the farm and received his board and room plus a small wage. He soon was able to purchase a purebred heifer of his own, which he kept on the farm, and which helped him to lay the foundation for his dairy business. I do not know the rest of the story but it is quite easy to imagine that, with the right boy and the right farm and farmer, a very desirable arrangement could develop so that eventually the boy would have enough stock and a little capital with which to start out on his own. Is it true that opportunities that may have existed, or might have been created and developed have been missed in our prevalent ideas of "ownership projects" for all boys at the very start?

Farm placement has a place for the "agriculturally underprivileged" group in our departments of vocational agriculture. In addition to productive enterprises, improvement projects, and supplementary farm practices, this fourth type of supervised farming program is important. Boys placed on good farms for farm experience gain knowledge and skills of the right sort and earn wages to assist in future farming activities. The bright, ambitious boy will lay aside his money until the time comes when he has accumulated enough capital, knowledge, and experience to start on his own. This may mean starting on perhaps a smaller scale than he should eventually undertake, on a share basis, as a tenant or as a renter. Isn't this his best method of "growing into farming"?

An Underprivileged Boy Who Made Good

Consider the case of James Smith. His home farm consisted of 90 acres in a hill district, of which but five acres were tillable. It was stocked to the extent of four scrub dairy cows and 20 hens. The father was shiftless and easy-going, content to eat and sleep as long as he didn't have to work. James planned to raise a half acre of potatoes with little equipment, no money, and a decided lack of encouragement at home.

Thru the efforts of the teacher of agriculture he was placed, instead, on a farm several miles away from home for the summer. The man on whose farm James was placed was a thrifty, honest Yankee farmer, who had a herd of 20 purebred Jerseys. The land was in fine condition with good rotation practices followed, and with good crops grown under excellent management. The farm was located near a large beach resort, and during the summer season the farmer added a summer retail route. James's job was to run this summer route. He had charge of milking the cows and of taking care of the animals and the barn. All the milk was handled by him, cooled, pasteurized, bottled, and delivered. He had complete charge of the milk rooms and equipment and was responsible for keeping them clean and sanitary. On the summer route at the beach, he had complete charge of securing customers, delivering the milk, keeping the accounts, mailing the bills, and collecting the money. Since between 150 and 200 customers made up his route, he was constantly busy and his work was challenging. He had just passed his eighteenth birthday when he took the job, and had another year of school. Needless to say, such arrangements could not be made with a freshman boy and certainly not with all boys.

James worked from the time school closed in the spring until after school had started in the fall. When visited by the teacher, James was bubbling over with enthusiasm. He was proud to show how he cleaned his milk room from stem to stern *every* day and to explain his system of making out bills. He became so interested that he could hardly wait to start a business of his own. On each visit of the instructor James proudly stated how many dollars he had in the bank up to that time and how he was saving his money to start his own business. Altho he is still in school he is working toward his goal. He may have to work after graduation to get capital to start for himself, but he has the vision.

A Retarded Boy Who Became a Good Farm Laborer

There is still another group of boys which we must not overlook. This group is made up of those who, regardless of background or facilities, do not have the necessary intelligence, initiative, or managerial ability. Often we brand them the "subnormals." Not every boy is capable of ownership or of assuming managerial responsibilities. This is nothing against him. Perhaps his best hope for the future is to be the best "hired man" that he can be. Opportunities are not lacking for this type of man in farming today. To attempt to establish this fellow on an independent productive basis, only to have him fail, is wrong. Poor leaders often make excellent followers and this type of fellow, if correctly directed, is not only a useful citizen but is also capable of making for himself a good living and a happy life. He needs no relief and does not become a burden on society.

Richard Storey came from a very poor family and had several brothers and sisters, none of whom had shown even average scholastic intelligence. Richard had been a "freshman" for three years, having failed so many subjects each year that it was impossible for him to advance in standing. In agriculture his first year he did good work, for him, because he had been reared in the country. However, in his supervised farming work he failed miserably. He had planned on one acre of potatoes but actually planted about one-fourth acre. Even that was too much. Weeds and blight, together with lack of foresight and ability, caused his failure.

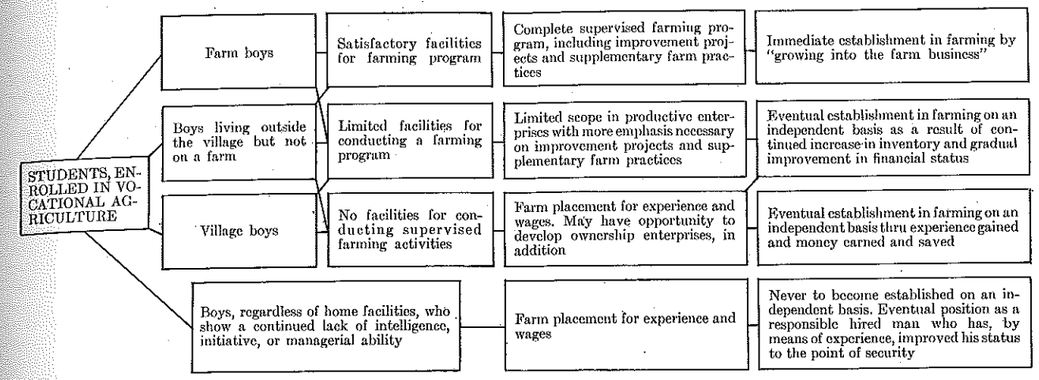
The teacher, having accepted the failure as his responsibility, believed that with more careful planning and closer supervision he could bring the program thru successfully a second year. This was all to no avail, for the potato enterprise proved to be no better than that of the previous year. The third year the teacher succeeded in getting the boy to work for a neighbor during the summer months as a hired hand. It was a good dairy farm and the boy did all kinds of farm jobs. Thru conferences with the farmer, the teacher was able to enlist his support in trying to develop the boy. The results were amazing. The boy was very much interested in his work, did what he was told to do, and did it well. On his own initiative, he put a long splice in the hay rope (having learned that in farm shop in school) which was a credit to anyone. He was happy in being directed, and prided himself on a job well done. Richard had to leave school because of his inability to do school work. However, he continued to work on the same farm. He was satisfied, as was the farmer. The last time any follow-up record was made on Richard, he was still working on the farm as *the* hired man, taking just pride in the fact that he was the one who was asked to do a job because he would do it well. He had learned to be diligent and dependable even tho he lacked managerial ability.

James and Richard personify the groups of individuals that profit by farm placement in vocational agriculture. For boys such as they, farm placement not only "meets the requirement" but is a preparatory step for establishing these boys profitably and satisfactorily in their life work.

1. Mr. Wright is assistant professor in charge of the Applied Farming Course and assistant teacher-trainer in agriculture at the University of New Hampshire.

2. L. E. Waight, "Is This the Solution of the Town Boy Problem?" *Agricultural Education*, VIII (Aug. 1935) p. 24.

Considering Individual Differences in Abilities and Home Facilities



Neither depression nor economy must be permitted to interfere with the right of every boy and girl to enjoy the educational opportunities that should be the birthright of every young American. —Louis J. Taber, Master, The National Grange.

Farm Security Loans for Students of Vocational Agriculture

THE Farm Security Administration has broadened its rehabilitation program and will make loans to students of vocational agriculture who are sons of parents who are Farm Security borrower-families, according to an announcement from the U. S. Office of Education.

A loan may be had for purchasing livestock, seed, plants, feed, fertilizers, or other materials that are needed by the student in the development of a sound directed or supervised farming program. The student in his application for a loan must include a statement of the purpose, size, and duration of the project and also the estimated expenses, receipts, and net income in connection with it.

These project or production enterprises undertaken by sons of borrowers are to be used as a basis for a sound educational program for the student.

The student borrower formulates plans for the program for which he needs a loan and has it approved by his teacher of vocational agriculture. The student borrower then makes application (including plans of his program) for the loan to the county supervisor of the Farm Security Administration.

A loan not to exceed $75 for the program will be passed upon by the county supervisor. It must be secured by a note signed by the student and his parents and a chattel or mortgage on the crops.

Lift me out of my laboring day,
Lift me up to the blue and away,
And let me discover my own horizon line,
Then drop me back to my work and play
And the far ends of the world in my day shall shine.—THE FAN-MILL, Dec. 1, 1938.

Farmer Classes

J. B. McCLELLAND — O. C. ADERHOLD

Assisting the Average Farm Boy in Establishment

H. R. KLEIN, Teacher, Urbana, Missouri

H. R. Klein

THE average boy enters the course in vocational agriculture for many reasons. He continues in the course because he is interested and likes it. He develops confidence in the work and he feels it will do him a lot of good. He becomes more and more interested and naturally looks forward to farming. He should farm or perhaps get into some related occupation because his main interest and his abilities lie in this field. But it is going to be very difficult for the average farm boy to realize this ambition.

After the boy is out of school for some time, he may become discouraged and quit trying. Yes, he has been a good student during his four years in the vocational course, has co-operated in a good F. F. A. program, and has carried on a well-balanced supervised farming program. He has been an asset to the local department of vocational agriculture. But it seems to him now that his efforts have been to no avail. He may even come to think that he could have spent his time and efforts in some other course to more advantage.

This situation is common to farm boys who have not received proper guidance or aid. However, with the co-operation of the parents, the teacher of vocational agriculture, the many government aids for youth, and other agencies this need not happen to the deserving, industrious, average farm boy.

Teachers of vocational agriculture in Missouri are very much indebted to Dr. H. M. Byram for discussions on the out-of-school farm boy last summer at the annual state conference. State supervisors provided an opportunity for teachers to carry on the discussion of this topic at the district meetings in the fall. After the district meeting in southwest Missouri, a survey form on the subject of the out-of-school boy was filled out by 20 of the teachers who have had from five to 18 years teaching experience in the same community.

Teachers Emphasize Establishment

The following is a summary of answers to a few of the questions, together with suggestions for ways of getting the boy established on the farm or in related occupations:

1. What are the present goals for your students? Many different answers were given to this question but they seemed to sum up that the boy become a good citizen and that he get satisfactorily established as a farmer or in some related occupation.

2. Could departments be rated on a basis of the extent to which former students of agriculture became established in a satisfactory way? There seemed to be no basis for a conclusion; therefore, the question is left open.

3. What is the average number of years during which the vocational agriculture student has direct contact with the department or instructor? Seven years was the average.

4. To what extent does the department or the instructor influence the boy during this period in his future successful occupation? Fifty percent was the average of the answers.

5. Should the instructor accept the responsibility of assisting former students to get established in farming or related occupations? The unanimous answer was "Yes."

6. Should it be a known program? It was also unanimous that it should.

7. What assistance or aids have been used in the program for establishment on the farm? The following were listed:

a. Co-operated with parents in planning establishment of the boy on the farm.
b. Kept up-to-date records on farms for sale and for rent in the locality.
c. Maintained direct contact with farm owners who have farms for rent, for sale, or for some form of partnership arrangement.
d. Assisted young men in working out their farm-credit programs.
e. Worked out partnership arrangements with parents and other farm owners.
f. Developed long-time supervised practice programs which enabled the boys to become established in farming.
g. Gave direct assistance to boys in obtaining jobs from which they earned enough to finance their beginning farming operations.
h. Kept close contact with the boys and supervised them after regular school years. One instructor mentioned the fact that he has kept close contact with former students thru part-time and evening-school classes as much as 15 years.
i. Nearly all mentioned the importance of the part-time and evening-school classes as an aid in establishment in farming.

8. What assistance or aids have been used in the program for related occupations?

a. Personal recommendations were given to employers.
b. Advice was given to boys concerning different jobs.
c. Boys were trained for some special service.
d. Boys' special aptitudes were discovered and they were helped to find positions.
e. The principles necessary in any vocation were taught.
f. Assisted boys in getting established in college.
g. Related agencies were studied, such as producers' creameries and feed companies.
h. Many stated they are now using for study a recently published list of related occupations.*

9. What agencies or individuals have assisted in the student-establishment program?

a. Production Credit Association.
b. Bankers' credit.
c. County agents.
d. Farm Security Administration.
e. Federal Land Banks.
f. National Youth Administration.
g. Evening or part-time classes.
h. Extension service.
i. Future Farmers of America.
j. Civic organizations (Chamber of Commerce, Commercial Club, etc.)
k. Boys' parents.
l. Insurance companies.
m. Relatives of the boy.
n. Friends of the family and boy.

Co-operation with parents in finding out the boy's situation in regard to future establishment on the farm was mentioned by most of the instructors. This is one of the most important procedures in a proper guidance program for the boy.

Conditions Affecting Establishment

In southwest Missouri, there are at least five situations to be found which affect the opportunities for boys to get established. These situations are as follows:

1. The boy's parents are economically in a position to help him get started in farming as soon as he leaves school.
2. The farm is large enough to accommodate the boy on the home farm and he may be needed to help operate it.
3. The boy's supervised farming, together with part help from his parents, may enable him to start in as a renter.
4. The boy has several younger brothers and can expect little or no help from home, altho the farm affords him a supervised farming program while in school.
5. The boy, altho very interested in farming, can expect no financial aid from parents to start in farming. He has no finances to carry on a supervised practice program, and even has to work outside to stay in school.

The boys in the first and second classifications do not have many difficulties in becoming established in farming. The Number Three boy will have a much more difficult time. When we get to the fourth and fifth groups of boys, of whom there are many in classes of vocational agriculture, we find many problems. The average farm boy will be found somewhere between groups one and five.

One of the new men in the field sent back his survey form saying he lacked experience and so did not answer the questions. However, he owed his job to the advice and aid he had received thru his high-school vocational agriculture program. Doubtless there are many teachers of vocational agriculture, county agents, soil conservation workers, and others in related occupations who owe their job to the advice and guidance they obtained from their teachers of agriculture.

One's personal experience affects his interest in a certain subject. Several years ago a young superintendent who was also teaching general agriculture said to one of his students, "You should attend the college of agriculture." That one bit of advice gave the writer the idea which became a reality. The young superintendent was Mr. Paul Chapman, who is now known and appreciated by all workers in vocational education.

With due respect to what has already been accomplished by various leaders, the instructors who co-operated in this survey feel that there is a need for much more study in this field. The development of a clear-cut, unified, and workable program that will help in the establishment of "the average farm boy," is a challenge to everyone in agricultural education.

*Byram, H. M. "Opportunities for the Farm-Reared Boy," *Occupations, The Vocational Guidance Magazine* XVII (Nov. 1938) pp. 114–121.

Full-Time Instructors for Young-Farmer Classes

LOUIS M. SASMAN, State Supervisor,
Madison, Wisconsin

L. M. Sasman

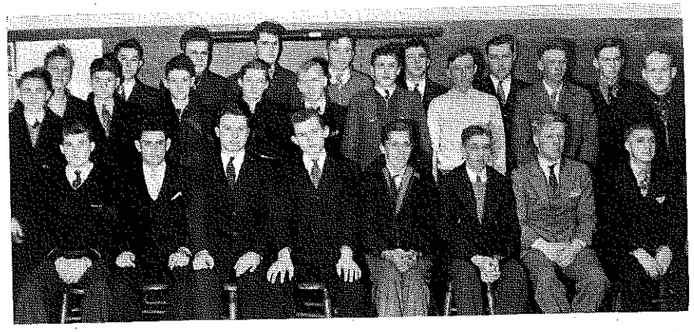
FULL-TIME instructors for part-time classes in vocational agriculture constitute one of the means of developing an adequate program of agricultural education for out-of-school farm boys.

In Wisconsin, as well as in other states, there is a considerable percentage of farm boys who do not enter high school and additional numbers who, for one reason or another, drop out along the way. In addition, there are thousands of young men who have completed their instruction in vocational agriculture in high school but find as they get into farming that the occupation is one which requires constant study to meet the problems of production, marketing, and management. These young men are anxious to receive help but have neither the time nor the funds, nor oftentimes the inclination, to attend full-time schools. To them the part-time school appears as a solution to their desire for further study of farming.

First Full-Time Teachers

One of the first departments of vocational agriculture in Wisconsin was at the Wood County School of Agriculture at Wisconsin Rapids where J. B. Taylor was hired as a full-time instructor for out-of-school boys in 1918. That program was carried on for a number of years but gradually developed into mainly an all-day program. In 1924, Clintonville High School employed E. A. Hutchinson to develop a program of vocational agriculture for out-of-school youth and farmers in that vicinity. After three or four years, that program, too, became primarily a high-school program, altho in 1939–40 there were in Mr. Hutchinson's classes at Clintonville 30 enrolled in young-farmer classes and 18 farmers in adult classes.

Another move was made in 1928 when the Stoughton Vocational School hired an agriculture instructor to give full time to the development of a program for youth and adults. Altho Mr. E. H. Vandrell, who has been instructor in agriculture there ever since, now gives about 40 percent of his time to high-school agricultural classes, there were last year at Stoughton 130 farmers enrolled in evening classes and 28 young farmers in part-time classes.



Young farmers enrolled in classes in agriculture at Ft. Atkinson, Wisconsin

About the same situation is found at Beloit where L. W. Beadle divides his time between the vocational school and the high school, and had last year 40 young farmers in two part-time classes and an equal number of farmers in evening classes.

Six Have Full-Time Program

Full time is now being given to young-farmer classes by O. W. Dobratz, at Ft. Atkinson Vocational School; N. F. Kahl, Plymouth High School; H. G. Klumb, Racine County Agricultural School, Rochester; K. L. Helwig, Superior Vocational School; I. G. Corey, Wausau Vocational School; and H. M. Nelson, Wood County Agricultural School, Wisconsin Rapids.

The School of Vocational and Adult Education at Ft. Atkinson took the lead, which has since been followed by the high school at Plymouth and the Vocational School at Wausau in developing a part-time program in which the young men come in on one day a week from different communities. To facilitate transportation young men from one direction come in one day, those from another the second, and so on. At Wausau classes start when the regular school year starts in the fall and continue until the close of school in the spring. Last year there were 111 young men enrolled, with a 60 percent attendance on the part of 55 members. At all the other schools the young-farmer classes begin in October or November and close in March or April.

Various Subjects Are Offered

The program at the Wausau Vocational School, which is much the same as that at Ft. Atkinson and Plymouth, can best be described in Mr. Corey's words as follows:

"Classes are conducted on Monday, Tuesday, Wednesday, and Friday of each week. Thursday is set aside for milk-testing and field work. The boys may also test milk on the day they come into school. This is done either before school, at noon, or after school.

"The first-period classes begin at 8:45 and end at 10:15. Some phase of animal husbandry is usually studied during that period, such as feeding dairy cows, judging farm animals, care of the laying hen, and sheep management.

"The class in shop work is held from 10:15 to noon. About half of this work is handled by other vocational teachers; when they take the farm boys to teach them woodwork, rural electricity, and soldering, I take other boys and teach them such work as harness repair, rope work, and farm buildings.

"Some phase of plant husbandry is given from 1:15 to 3:00, such as growing better corn, work on soils, fertilizers, and improving our hay crops. This year some of the boys are coming in for their third year and are studying farm arithmetic and agricultural economics.

"Some form of athletics is included for the part-time boys from 3:00 until 3:45, when school is dismissed. In the fall and spring, the boys play kittenball or go swimming in the school pool. During the winter months they go to the YMCA where they swim, play basketball, pool, billiards, dart ball, or ping pong, or enjoy most any game they desire.

"At the end of each nine weeks, each group is taken on an all-day field trip

(Continued on page 198)

Studies and Investigations

C. S. ANDERSON

Opportunities for Placement and Establishment on Farms in Selected Ohio Communities Where Vocational Agriculture Is Taught*

JOHN B. McCLELLAND, Teacher Education,
Ames, Iowa

J. B. McClelland

THE purpose of this study is to find the approximate number of opportunities for placement and establishment of boys and men on farms other than their home farms, to learn something about the nature of the vacancies, and to find out what qualifications were desired of those who might fill the positions.

That there is a need for a study of this kind is shown by the difficulties farm boys and young men are encountering in entering farming. Previous studies have disclosed that only about one-half of the young men on farms reaching the age of 20 each year are needed to replace the number of gainful workers on farms who die or retire during that period. It has been shown that there is a long period between the time students of vocational agriculture leave high school and the time when they reach the status of renter, owner, or manager. The presence of brothers in the family and the continuance of these brothers in farming seem to delay advancement in the farming status. This suggests the need for a study of opportunities on farms other than home farms, because a very large percentage of students have one or more brothers.

This study of opportunities for placement and establishment on farms is limited to some aspects of opportunities for persons outside the family of the operator, on farms in Ohio in certain communities where vocational agriculture is taught.

The Source of Data

The main source of data for this study was a survey of 1,842 farms in the state made by teachers and students of vocational agriculture in 178 communities where the teachers were employed on a full-time basis, and where the departments had been established two years or longer. Teachers and students in the co-operating schools were asked to secure data from two farms adjoining the home farm of each senior in the departments. The replies received represented 83.3 percent of the total number of farms sampled in these communities. Replies obtained represent approximately 3.2 percent of the farms in the entire area. It was necessary to discard 141, or 7.6 percent of the 1,842 replies received due to incompleteness and inaccuracies in the data. The remaining 1,701 replies were used in the study.

Farms and Farm Operators Studied

A comparison of the 1,701 farm operators studied with all farm operators in Ohio, as shown by the United States Census, indicates that the status as to tenure of the farm operators in the study is typical of that of all farm operators in the state.

The farms were classified on a basis of type-of-farming areas in Ohio and on a basis of opportunity for settlement of additional farm population.

The percentage of the farms studied located in the better farming areas is larger than the percentage of all farms in the state found in these areas. This probably is due to the fact that a larger number of departments of vocational agriculture per county are located in these better farming areas. Due to this distribution of the farms studied, conclusions are applicable only to areas where vocational agriculture is taught and not to the state as a whole.

The Average Size of the Farms

The average size of farms in the study is 117.8 acres, whereas the average size of all farms in Ohio is 89.6 acres, according to the 1935 Census of Agriculture. An analysis of the number of farms in various groups as to size shows that fewer small farms were included in the study than were reported by the census.

The fact that the average size of farms studied is greater than that of all farms in the state may be due in part to a tendency for departments of vocational agriculture to be located in areas where farms are larger than average.

Altho the average size of farms in the study may not be typical of the state as a whole, it is likely that the size may be typical of the farming areas in which students of vocational agriculture live.

The Amount of Labor on Farms and the Amount Needed

In addition to the operator, the number of males 14 years of age or older, both in the family and outside of the family, who are reported as available for work either full time or part time is 176.7 per 100 farms in the study. Operators of these farms say that they need in addition to themselves only 125.7 full-time and part-time males per 100 farms to operate the farms during the next 12 months. It is apparent, therefore, that there is a surplus of 51 males per 100 farms. Of this surplus 38.4 are out-of-school or in-school persons who are available only part time.

More than half of all farm operators reporting say that they have the right number of persons available as family help and outside employed help. About one-third report a surplus while one-tenth report a shortage.

Farms in the study have a total of 10.2 months of labor per farm, other than that of the operator, available as family labor or non-family, employed help. This is 2.6 months in excess of the 7.6 months of labor per farm that the operators say they will need to operate the farms during the next 12 months. It is apparent from these figures that many of the surplus part-time persons on these farms are available for only a short time during the year. Many are, of course, in school.

Altho the average number of acres in harvested crops and rotated pastures is more than twice as great in farms in western Ohio as in southeastern Ohio, the number of persons available and employed and the number that farm operators say they need per 100 farms are very similar in these two type-of-farming areas. A similar situation seems to exist when the amount of labor available and the amount needed are classified on a basis of opportunity for additional farm population.

It is probable that the relatively high labor need in certain poor farming areas is associated with smaller units of farm equipment and less power machinery in these areas. Other factors may also affect the situation, such as the intensity of the farm business and the lack of opportunity for farm boys to get employment elsewhere.

About 10 percent of the farm operators studied plan to expand their programs to such an extent that more labor will be required during the next 12 months than during the preceding year. Approximately four percent say that decreases will be made in the farm business affecting the amount of labor needed. Most of these cases involve changes in family labor rather than in outside help.

Opportunities for Buying Farms

Operators report that 6.6 percent of the 1,701 farms are for sale now or probably will be for sale within the next 12 months. The percentage of farms for sale is lower in western Ohio than in southeastern Ohio and is lower in the more favorable than in the less favorable classifications of farms on a basis of opportunity for additional farm population.

The average size of farms for sale, or that probably will be for sale within the next 12 months, is less than the average size of all farms in the study. Ages of owners of farms for sale tend to be somewhat higher than the ages of owners of all farms.

Opportunities for Renting Farms

Four percent of the farms studied are for rent, or probably will be for rent within 12 months. Since the reports were obtained during the months of March and April, it is probable that less farms were reported as being for rent at that time than might have been reported at other times of the year.

Farms that are reported for rent, or that probably will be for rent, have a smaller average acreage than all farms in the study, altho the average size of all farms operated by tenants and managers is larger than that of all farms in the study. A possible explanation of the small average size of farms reported for rent is that farms which were still for rent in March and April were the less desirable farms which had not been selected by persons looking for farms before the usual renting date, March 1. The ages of owners of farms for rent tend to be higher than the ages of owners of all farms.

The approximate capital required of the tenant, including the value of livestock and equipment, but not including household goods, ranges from no requirement in three cases to $2,500 or more in eight instances. The seven farms where the requirements were low, ranging from no capital up to $749, are all farms which were in the hands of owners or part-owners who operated the farms themselves.

Opportunities for Employment as Hands

Operators of 12.6 percent of the farms in the study expect to employ as hands a total of 376 new or different persons outside of the family during the next 12 months. However, only 50 of these new hands will be needed on a full-time basis.

As 223 full-time hands were employed during the past year the expected turnover of full-time hands during the next 12 months might be calculated to be 22.4 percent. The expected turnover of part-time hands is 33.9 percent. The percentage of farms offering employment for new full-time persons is somewhat higher in the better farming areas of the state than in the poorer sections. However, the opportunities for employment on a part-time basis seem to be fairly well distributed.

Farms probably employing new full-time hands have 42.8 more acres per farm than all farms in the study. Those where part-time hands probably will be hired have 29.4 more acres per farm. Some living essentials will be provided for the new hands by about one-half of the farm operators.

There is a marked tendency for farm operators in Area I, western Ohio, to pay higher wages than those in Area III, southeastern Ohio. Similarly, wages seem to be higher in the more favorable groups of farms than in the less favorable groups classified on a basis of opportunity for additional farm population.

The opportunities for married hands seem to be relatively greater in the western Ohio area than in the northeastern and southeastern sections of the state. A majority of the farm operators who give any preference as to age of new hands say that they want persons under 25 years of age. More than half of the farm operators probably employing new hands indicate either that they have no requirements as to farm experience, or that they require persons with one to four years of general farm experience. Only 15.3 percent of the farm operators probably employing new hands require persons who have had training in vocational agriculture. About one-fifth of the operators having vacancies say that they are interested, or probably will be interested, in applicants. More than one-third have persons in mind for the jobs.

Opportunities for Employment on a Share Basis

Only 25, or 1.5 percent of the farm operators in the study expect to employ new or different persons on a share basis. The nine persons who probably will be employed on a full-time share basis would represent an expected turnover of 16.4 percent of the 55 persons who were employed on this basis last year. The 20 persons who probably will be employed on a part-time share plan constitute an expected turnover of 28.6 percent.

Farms where new persons probably will be employed on a share basis are somewhat smaller than average in size. Of the 25 farm operators who probably will employ new persons on a share basis only six report that any living essentials are to be provided. In many cases no capital, or only small amounts of capital, will be required.

Some Implications of the Study

Teachers of vocational agriculture report an average of approximately 325 farms in the area served by the typical department co-operating in this study. Reports of farm operators as to the number of vacancies or openings, per 100 farms, that exist at the present time, or that probably will occur within the next 12 months indicate that the number of openings for new or additional persons outside of the family of the operator in the typical community studied will be approximately as follows: opportunities for buying farms, 21; for renting farms, 13; for employment as full-time hands, nine; for employment as part-time hands, 62; and for a full-time or part-time share basis, six. Thus the typical community where vocational agriculture is taught will offer during the next year a total of approximately 111 vacancies of various kinds in farming.

The fact that there is a surplus of 51 males 14 years of age or over per 100 farms in the study, or a total of 166 surplus males in the typical community over those needed is of significance. It must be recognized that, in addition to the competition of many of the 166 surplus males for the 111 openings, there also will be competition for these openings by persons who are now engaged in farming in various capacities. A large percentage of these openings will doubtless be filled by exchanges of places between those who are at present engaged in farming.

These vacancies vary greatly in their desirability from the standpoint of the opportunity offered for placement or establishment in farming on a satisfactory basis. Many of the openings, including a large proportion of the openings for part-time hands and for persons on a share basis, seem to offer very little in the way of permanency of employment, financial remuneration, or desirable living conditions. Other openings which offer good opportunities for placement and establishment have very high requirements as to capital, livestock, and equipment needed, as well as to personal qualifications. Considerable variation exists in the number of openings, and in the relative desirability of openings of different kinds in the various areas of the state.

A Community Survey of Opportunities

Because of the competition involved and because of the wide differences in the nature of the openings it would seem to be desirable for teachers and students of vocational agriculture to make a careful study of openings on farms in their communities. If the desirable openings found require certain minimum amounts of capital, livestock, and equipment, and certain personal qualifications, boys who are interested in preparing for such opportunities may plan their supervised farming programs and other phases of their educational programs in accordance with these openings.

Experience indicates that high-school juniors and seniors and part-time students in departments of vocational agriculture can interview farmers satisfactorily for a study of this kind.

Concluding Statement

Opportunities for placement and establishment on farms other than the home farm vary greatly in number and in desirability. Altho some opportunities are found in all communities, strong competition seems to exist for the more desirable openings. Many of the most desirable opportunities have high requirements as to capital and personal qualifications.

A careful study of the vacancies in local communities may enable boys to be placed in the positions best suited to their interests and qualifications and may enable them to plan a type of educational program that will be adapted to their needs. Apparently such an educational program should include emphasis upon the development of a supervised farming program that leads to the accumulation of the necessary capital, livestock, and equipment, as well as to the development of the personal qualities that will enable the individual to grow into the vocation of farming.

Some students will be interested in a comparison of the opportunities on their home farms with the opportunities on other farms. In many cases the opportunities for placement and establishment of boys on their home farms are better than any openings that they would have elsewhere. Other students will want to compare the opportunities on their home farms and on other farms with those offered in occupations related to farming and in other vocations. Young persons interested in and qualified for other fields of work should be given an opportunity to learn about such occupations. Teachers of vocational agriculture as well as others have a responsibility for guidance of their students.

(Continued on page 198)

Some Directions Research Is Taking in Determining How Agricultural Education in Secondary Schools Measures Up*

H. M. BYRAM, Teacher Education, East Lansing, Michigan

H. M. Byram

SEVEN years ago Dr. H. M. Hamlin prepared a summary of measurement studies in agricultural education that had been made up to that time. This was published in *The Agricultural Education Magazine*. In addition to pointing out the accomplishments he called attention to the needs as he saw them. His summary statement concerning the status of research in measurement at that time is as follows:

"No satisfactory achievement tests for classroom use have yet been developed. The only tests available measure only the temporary possession of detailed, unrelated information. They do not measure the broader and more important outcomes of instruction.

"Certain issues have been settled rather conclusively thru measurement studies and need little further work, notably the extent to which town boys with training in vocational agriculture engage in farming, the success of vocational graduates in college, and the occupational distribution of vocational graduates.

"The means thus far available for rating teachers and departments are little, if any, better than none at all. In some cases, their use has clearly resulted in harm thru overemphasis of unimportant, undesirable criteria.

"The most promising lead (is in) . . . the measurement of abilities, skills, attitudes, appreciations, and other types of outcomes which we have not yet learned how to measure very well."[1]

To what extent have research workers in agricultural education heeded these recommendations? It is the writer's purpose here to point out the extent to which we have followed these recommendations, and to indicate the progress that has been made.

No attempt is made to present a review of current and recent studies, but rather to indicate what current efforts are being made to determine how vocational agriculture measures up.

Follow-up Studies of Graduates

Three years ago the A.V.A. Research Committee planned and launched a survey to determine how all types of vocational education measured up in a typical area of Pennsylvania in and surrounding Williamsport. The 510 graduates from 12 schools who had had two or more years of vocational agriculture were studied. Since copies of this study have had wide distribution it is referred to here only briefly.[2]

This study substantiated many of the findings of similar studies made elsewhere. But in addition, certain new facts were brought to light. Some of these are encouraging. Of the graduates studied the more recent ones reported larger supervised practice programs than the earlier ones. The graduates testified that the courses had given them useful knowledge, experience in working with people, assistance in coping with farm problems, and other values. Practically every farm on which graduates were living had an automobile, nine-tenths had radios, four-fifths had electric lights, and three-fourths had telephones. Five-eighths of the graduates reported that if they had it to do over again they would take vocational agriculture. On the other side of the ledger, however, we also find some interesting facts.

1. Graduates reported being least well prepared in buying and selling, in technical knowledge related to agriculture, in general managerial experience, in farm-record keeping, and in farm mechanical activities.

2. Two-fifths of the graduates had not been visited by the teacher of vocational agriculture since graduation.

3. Less than two percent had been enrolled in part-time and evening classes after graduation.

4. Altho seven-tenths of the respondents had carried livestock projects, only three-tenths reported owning livestock when they left school.

The large number of follow-up studies made in the last decade no doubt has thrown some further light on the effectiveness of instruction.[3]

A number of studies have been made to determine how well former students of vocational agriculture succeed in college, altho this question has been pretty conclusively settled for several years.

Another type of follow-up study which can be termed evaluatory is that of attempting to validate the standards for raising the rank of F.F.A. members. For example, Wayman studied the State and American Farmers of West Virginia and found little difference between American Farmers and State Farmers so far as progress in their occupation is concerned. However, Sharitz of Virginia found that 48.12 percent of the former State Farmers were farming, as contrasted with the non-State Farmers, of whom only 37.2 were farming.

Attempts to Evaluate Supervised Practice

A number of studies have recently been made to attempt to evaluate supervised practice. This is a healthy sign. Supervised practice has always been accepted as an essential phase of vocational agriculture. But there have been scant scientific bases for many of the things we do in supervised practice.

Some studies have had as their aim the development of devices for checking the program. For example, Noble[4] found 54 separate forms in use in 165 departments in New York. There is a definite trend toward including supervised practice in measurements used in determining school marks. For example, Noble found 81 percent of the New York teachers he surveyed allowing a definite percentage for supervised practice. Continued efforts have been made by others to find the factors associated with strong programs of supervised practice. Buckley[5] of West Virginia found that the distance of the boy from school bore a negative relationship to size and quality of programs.

Davis[6] of Texas, in analyzing project records on 117 calves owned by 43 students of vocational agriculture, found that profits from calf-feeding, exclusive of show premiums, are likely to depend upon keeping the cost of production low and selling the calves above the top market price. Is a program of supervised practice effective if it does not result in prizewinning animals? It is the writer's opinion that it can be.

W. H. Dowell[7] of Pekin, Illinois, studied the factors associated with percentage of project completion, project income, yield of corn per acre, yield of pork production per head, and yield of beef production per head in Pekin and nine near-by departments. Factors studied included experience of the teacher, tenure, proportion of time devoted to teaching agriculture, teaching load, percent of class members from farms, size of class, and teacher's conception of project work. The only factor associated with project completion was size of class (associated negatively) and with percent of boys enrolled who were from the farm. The teacher's concept of project work showed positive relationships to project income and to pork and beef production. No single factor was found to be consistently associated with high-quality programs as measured by criteria he applied.

Bible[8] of West Virginia found that of 84 youths rating factors in the development of long-time supervised practice programs, 96 percent rated co-operation of parents as of great importance, 93 percent "my own interest" in agriculture, and 88 percent the teacher's influence.

Apparently price levels are not closely associated with the number of projects found in various enterprises, according to Craner of Idaho.[9]

Hoskins of New York has studied project financial records to evaluate the program in one community on a long-time basis.[10]

Allman of West Virginia has made a different approach to the evaluation of supervised practice.[11] Thru a questionnaire to 200 former students and to farmers and businessmen of his patronage area he found and reported improvement of farm practices, an increase in beautification of rural homes, and an improvement in the grade of farm products being sold by farmers.

Measurement of Outcomes

The most disappointing phase of measurement, so far as the number interested in investigation is concerned, is that of measurement of *achievement* and other *outcomes* of instruction. Fifteen or twenty years ago there was considerable activity in the development of tests. However, on the one hand, a number of people pointed out that the tests then being developed measured only temporary acquisition and indicated nothing as to what boys would be expected to do in farming situations. As a result these pioneers threw up the sponge and quit working on tests. On the other hand, the sponsors of the community farm survey as a means of measuring the results of agricultural education were receiving acclaim. Since then this method has lost prestige and we have all become more aware of the need for measuring changes in human behavior rather than changes in farming practices. But few have spent much time at doing research in this field.

Aderhold and Ekstrom[12] under the tutelage of Tyler at Ohio State produced several suggestions for improving tests, as has also Hemming of Minnesota.[13] We have not heard much as yet, however, regarding experimentation with these types of tests.

Deyoe in Michigan has, for several years, been devising tests which purport to measure problem-solving ability and outcomes of instruction in agriculture other than information retained.

His experiments with these tests suggest some possibilities for further research. He has given two forms of the same test to students in the fall and spring. He found a sophomore and a junior who made higher scores in the spring than *any outgoing* senior. Some sophomores had higher scores in the beginning of the year than seniors did at the end of three years of vocational agriculture. While, for the most part, the data showed evidences of growth during the year, about one-sixth had about the same or lower scores at the end of the year.

In many fields of measurement in elementary and secondary education, educators are giving greater weight to growth studies in the evaluation of instruction. Why shouldn't studies of this type be made in agricultural education as well?

Evaluation of Entire Programs

Among the more promising approaches to evaluation of total programs of agricultural education is the one proposed by Ekstrom in his paper presented at the A.V.A. meeting two years ago at St. Louis.[14] The advantages of his techniques are: (1) Local people participate in the evaluation, (2) Reactions of persons served by the department are taken into account, (3) The evaluation is definitely tied up with program planning and the formulation of objectives locally, (4) Outcomes are taken into account as well as ways and means, (5) The final evaluation is determined by the extent to which the objectives set up locally have been achieved, rather than by the extent to which teachers have carried out certain procedures and practices predetermined by authorities or by common usage.

In earlier years a negative approach was followed in which the factors associated with dropped departments were studied. Only occasionally is this approach used now, the most recent study of this type being one by Sowers of Texas.

Most of the current emphasis, however, is not along these lines nor of those suggested by Ekstrom. Some attention is being directed to evaluation of teacher-activities. Frazier of Iowa has reported on teachers' summer activities. This study revealed that the amount of travel by teachers and also the amount of work done by them were related to the breadth or comprehensiveness of the program.[15] Anderson has developed a teacher-rating scale at Pennsylvania which attempts to evaluate teacher characteristics and activities.

National Evaluation Study

These approaches are being augmented at the present time by the national evaluation study started by the National Committee on Standards and sponsored by the U. S. Office of Education. Because this study has been and will be discussed more at length elsewhere only a brief comment on it will be made here.

The techniques used in this national study may not be the ones which will eventually be adopted by local groups for evaluating local programs of agricultural education. It is possible that the procedure is unduly governed by predetermined standards and that it does not provide adequate controls for the biases of the evaluators. However, it should be apparent to those who have participated or are participating in this national study that some very definite values may come from it.

1. It should make state leaders and some teachers and administrators more conscious of the need for measuring the effectiveness of programs.

2. It should reveal current practice in such a way as to make imperative the revisions of standards based heretofore not on sound research but on authority or tradition.

3. It should help local administrators to improve their supervisory activities.

4. It should serve to supplement evaluations made by local people.

5. It should reveal unsolved problems of measurement and may uncover leads as to how they may be studied and solved.

6. It should eventually result in more effective programs of teacher-education and supervision.

7. It should demonstrate what can or cannot be accomplished by way of co-operative studies as contrasted with piecemeal, sporadic studies made here and there by individuals working independently and in an unco-ordinated way.

This project should be carried thru to a successful completion.

Conclusions

We have found several trends in research relating to measurement. Studies of the products of departments of vocational agriculture and their careers are still being made in large numbers in spite of the fact that answers to the questions these investigators studied were considered by many to have been pretty well solved. Factors associated with vocational success are receiving further attention. Increased attention is being given to the evaluation of supervised practice and to finding out how to get better farming programs. Some effort is still being made to improve techniques of measuring achievement and other outcomes, but more attention is currently being paid to teachers' activities and characteristics of programs and to comparing these with be done in the future?

In the first place it is very clear, after perusing the recently completed studies, that research in the measurement of agricultural education has been confined too much to the all-day program. We need to include agricultural education for youths and adults in our thinking when developing measurements of effectiveness of instruction. More attention needs to be paid to the evaluation of instruction in farm shop.

Secondly, there is need for a renewed effort to find new and better ways of detecting outcomes of instruction and for measuring them against valid objectives. We need to pay less attention to traditional or imaginary standards in our research. There is a crying need for someone to find and demonstrate the best way to measure growth in farming ability of young men and adults. We should have *a way of determining at any time,* from the day a boy enrolls in high school until in old age when he retires from farming, *whether his farming ability is actually being improved.*

When this is done, and not until this is done, will we have a starting point for measuring teaching efficiency, and thus have a basis for teacher-selection and for improving teacher-education programs. This is one of the greatest needs in agricultural education today.

*Address delivered at the Agricultural Section of the A.V.A. Convention in San Francisco, December 16, 1940.

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Future Farmers of America

L. R. HUMPHERYS

Co-operative Sheep Raising

IRA L. PLANK, Adviser, Winfield, Kansas

EIGHTEEN years ago the senior class in agriculture in the Winfield, Kansas, high school made a survey of the sheep population in the county. The results showed the county had more dogs than sheep. It was an eye-opener to the natives in our section and, especially, to our Future Farmers. It put the boys on their toes for a program of improved practice.

Today, 34 Future Farmers in the Winfield chapter have sheep as a part of their farming program. This transition did not take place in a day. After making a careful investigation of the sheep enterprise, our chapter members decided to buy western ewes and produce early, milk-fed fat lambs. The Texas ewes have proved to be more profitable than our native sheep. It is easier to bunch the lambs from western ewes. That is, western ewes, when handled properly, will drop their lambs the last of January and the first of February with striking regularity. This enables the boys to market all their lambs by June 1. In so doing, top prices are received for their product and the lambs are all cleared off the local premises, thus avoiding danger of the carry-over of the stomach worm.

ewes are held for a second crop of lambs. We are able to buy these ewes that are so old that they would be unable to make it another year on the range at a reasonable price. They cost about four dollars per head laid down at Winfield. We sell them for a net of about three dollars along with their lambs. This is much cheaper than one can maintain a breeding flock of natives and save ewe lambs to replace the breeding stock.

In order that boys may obtain good rams to use with these western ewes, the Winfield Chapter of Future Farmers purchased a small flock of purebred Shropshire ewes from which to raise purebred rams. The purchased purebred ewes are placed out with chapter members on a share basis, and rams are either sold or loaned to boys starting in the lamb-raising business.

This community now ships co-operatively every year 15 to 20 carloads of early fat lambs, with most of them market toppers. Most of these shipments can be traced directly to the stimulation produced by the sheep project started in the agriculture department of the high school. The majority of the Future Farmers continue their sheep enterprise after leaving school. The enthusiasm and success of the boys has led many farmers to go into the sheep business.

The five winning lambs at the 1940 show held in connection with a co-operative shipment

How Ewes Are Purchased

Ewes are purchased on a feed-in-transit plan. They are billed thru Winfield to a terminal market and are shipped with the privilege of unloading and raising a crop of lambs. The fat lambs and ewes are then shipped to the terminal market at the same freight rate. Usually, one-half or more of the

Sheep loans are made thru the local Production Credit Association. The Winfield Future Farmers own the class "B" stock necessary to secure such loans, and the teachers act as trustees for the Association. About $1,200 per

(Continued on page 198)

F. F. A. Motive Power

LESLIE NELSON, Adviser,
Box Elder High School, Brigham, Utah

ARE you interested in automobiles? Here is a car that is creating a sensation in every part of the country! It is the new model F. F. A.! Call at your rural high school for a demonstration!

It is one of the few educational models that has the beauty of *doing* blended in harmonious pattern with *learning*. The new streamlined body cuts the resistance of *ignorance* and *waste*. Springs of *activity* and cushions of *co-operation* smooth out the rough spots encountered along the highway of service. Upholstery of courtesy and luxurious patterns of recreation decorate the interior. The heater of achievement will melt the ice of *indolence*, and thaw the snow of *isolation*.

The quiet, powerful, and efficient motor, with its six cylinders of responsibility, determination, self-confidence, dependability, expression, and friendliness, takes the hills of discouragement with ease, and detours you around trouble toward the goal of true democracy.

What are you willing to pay for joint ownership in this automobile? The price, marked clearly on the windshield, is "*Active Participation.*"

Finance and Upkeep

You ask, "What about the operation and upkeep?" The first step is to get the thing started. A crank won't help much, for it's an individual matter. You'll have to use a self-starter, turn on the key of *initiative*.

Use brakes of *patience* and *self-control*. Put large quantities of cheerfulness and hope in the grease cups. Use the *perseverance* brand of gasoline as motive power; never fill the tank with hot air or you will run out of power just when you need it most.

Adjust the carburetor to admit equal parts of earnestness and dispatch; use freely the primer of *enthusiasm* and lubricate with the oil of efficiency.

Have the timer set "early"; advance the spark of ambition for more speed. Open wide the throttle of faith in yourself and your work. Fill your radiator with a solution of *preparedness* and the engine will always run smoothly and will not overheat.

Use the polish of praise and appreciation, dust the seats of all disagreeable elements, and adjust yourself so that others may ride with you. Use "stick-to-itiveness" tires on non-discouragement rims. Guide with the Golden Rule steering wheel behind the headlight of example.

If these instructions are followed, your F. F. A. car will glide smoothly over the roads of "annual programs" and will pick up new passengers on the broad highway of *activity*. It will leave in its wake satisfaction, pleasant memories, and success.

Between Men

DOUGLAS FISK, Hunter, N. Dakota, First Place Winner, 1940 National F. F. A. Speaking Contest Held at Kansas City, Mo., November 11, 1940

OUR landlord voluntarily gave us 14 acres of corn this year. You see, my father does not own the farm on which we live. Yes, fellow Future Farmers, we live on one of more than 2,800,000 farms in the United States operated by tenants for their landlords. In this owner-operator relationship, agricultural experts will tell, lies the major problem confronting American agriculture today.

The experts are right, but their opinion is not necessary. My father operates a rented farm—this year our landlord gave us 14 acres of corn.

Now let us get to the root of this problem. We know that overcropping and soil depletion are important characteristics of tenant farming. But why does the tenant keep few livestock? Why are the farm buildings and fences out of repair? Why is tenant farming the object of our government rehabilitation program? Let us paint this picture clearly in our minds. Our traditional system of land renting is the short-term lease. Most tenants have a contract for a single year. All the tenant's assets must be in liquid or movable form at the end of the year—not because he wants it that way, but because that is the way our farm tenancy system works. The uncertainties of his occupancy and the requirements of his lease dictate quite definitely what the tenant can grow and what livestock he can produce. Hence he is largely a producer of cash crops by necessity.

Furthermore, 82 percent of all tenant farms are operated on a share-crop basis. Therefore, the tenant is encouraged to produce cash crops. Crops that must be marketed thru livestock are discouraged. This is an obstacle to the adoption of soil-conserving practices.

NEXT, in our Middlewest particularly, the crop-share lease obstructs an increase in soil-conserving grasses and legumes. Rent for pastures and hay land must be paid in cash. Since the landlord's share in the cash crop is largely determined by custom, the bargaining between individual crop-share landlords and tenants is founded largely upon the determination of the cash rent for hay, pasture, and corn land. The landlord's bargaining power and his cash-rent rate have forced tenants to keep these soil-improving crops at a minimum.

Finally, the lease contract is not the sole motivating force behind exploitative farming. Tenant farmers as a group are younger than owner-operators, not usually so experienced, and more often lacking in foresight and responsibility. They are anxious to accumulate capital rapidly, thru cash crops, to buy a farm of their own.

Our land policy, it seems, has developed in such a way as to leave landlords free to sell the farm, tenants free to move, and both free to exploit the land. Fellow Future Farmers, is that the picture you wanted me to paint? Granted this, the national picture may not prevail everywhere. We proceeded for one hundred years on a basis of every man for himself and letting the future generation take care of itself. Farm lands have been used by landlords and abused by landlords as a place to live.

BUT let me take you home with me for a brief moment. We rent a 230-acre farm in the Red River Valley. My father rented this farm in 1909 on a regular 50-50 crop-share basis. The corn, pasture, and hay land was to be paid for at the rate of $2 per acre. With this agreement, a small assortment of machinery, six horses, and a will to succeed, my father started farming. Underneath the myriad purposes which made up his motives, buried more or less deeply by the necessity of providing for everyday existence, lay the hope of accumulating at some time sufficient surplus to satisfy the desire of every man's heart—to own a piece of land—a piece of land upon which to plant what he chose, to watch the growth under his care, and to reap whatever harvest he might produce. Then he could say: "I am lord of all I survey." His success would depend upon the degree of intelligence and industry he brought into his work. All his labor would bring a direct bearing upon the comfort and contentment of himself and his family. He would be, in effect, the guiding influence of a little kingdom, a kingdom, as Longfellow in his "Evangeline" said: "Darkened by shadows of earth, but reflecting the image of heaven." As the farming enterprise went on my father learned and many of his dreams went unsatisfied.

He kept a very accurate set of accounts. I like to follow one old record in particular. In 1911 my father had 35 sheep. The contract called for $2 an acre rent for pasture and hay land. This my father paid. In balancing his records on January 1, he credited his sheep account with $36 for manure spread on 20 acres of wheat land. He also credited his sheep project with $16 for their use in controlling weeds on the pasture lot. Then in the wheat account he charged his wheat enterprise on the 20 fertilized acres for $36 in fertilizer. His account showed that the 20 acres which were fertilized showed $67 profit over the cost of manure due to an increased yield of four bushels to the acre.

A similar record was kept on 14 head of cattle the following three years. In 1914 the landlord approached my father. "Mr. Fisk," he said, "the prospect for wheat prices this year is exceptional. I'm going to ask you to plow up your sheep pasture. I know that this will make it necessary for you to sell a few sheep and cattle but we cannot afford to pass up this chance."

My father has described the thoughts that passed thru his mind many times since. "Mr. Landlord," he said, "have you time to figure awhile with me? I have something to show you."

THIS was the beginning of a new understanding. A new policy developed between my father and the landlord. The landlord saw the hog account. He saw the beef-cattle account; he saw the pasture account; he saw a new agriculture on his own farm. Carefully kept accounts on a rented farm, from which a influence his landlord and himself, can be a guide to successful farming and can be the answer to our problems of land rental.

National farming conditions during the past decade have been in a very grave state. With the farmer's markets of previous years swept away in the crash of '29, he has turned to the Federal government for financial help instead of organized guidance. Yes, the farmer has had to be paid for the conservation of his own soil.

Fellow Future Farmers, let us march back to the land. Let us put this machine that furnishes the world with food in good repair. If we rent a farm let us not treat it as something we have borrowed from a landlord.

That, gentlemen, is my interpretation of a national problem that is even too great for promoting politicians, scheming realtors, and business farmers. I did not need to memorize these conclusions. I have grown up with them. I have lived with these convictions and have myself been a page in this lesson. I related a story about a renter, my father, who has rented the same farm for 30 years; who has built up a modern farm for himself and his landlord; who sent a family of seven well on their way thru school; who still rents the farm. This year the landlord gave us 14 acres of corn—the 15th consecutive year—because my father operated his farm as tho it were his own.

Help From F. F. A. on the Present World Problem

JOSE C. MENDEZ, Instructor,
Las Marias, Puerto Rico

IN THIS world crisis, what contribution can the Future Farmers of America make? The future of our nation now as always depends upon a prosperous agriculture and a co-operative people. We must stimulate our efforts in vocational education in agriculture to reach more farm boys and out-of-school youth who are to become the farmers of tomorrow. Now is the time to increase our efforts in securing a more efficient system of agriculture. Improved methods of production and grading, more efficient marketing practices, elimination of weeds and pests, better care of farm machinery, lowering farm loan rates, decreasing overhead costs—these are some of the improved practices which must be adopted by Future Farmers if we are to earn the present and needed future financial support for this type of education.

During the past ten years, the Future Farmers of America has contributed much in the way of co-operation and nurturing of a love of country life. More emphasis needs to be placed on real plans for becoming established in the business of farming. This means the Future Farmer must "carry on" after he leaves high school—become identified with farmers and farm organizations and grow into the business of farming.

Thru a systematized and well-planned supervised practice program, thru leadership, a better knowledge and understanding of our agricultural and economic problems, as well as the adoption of improved practices, the Future Farmers must strive diligently to make their con-

critical period of our history. By their real farming activities, they can become good farmers, true soldiers, and real citizens. The Future Farmers have only secondhand information concerning the last World War. In this World War they have a real opportunity to test the F.F.-A. motto.

Opportunities in Ohio Communities

(Continued from page 103)

Altho studies of opportunities on farms and in other vocations may help certain boys with the proper qualifications and abilities to get established in occupations which offer them an opportunity for a satisfactory life and an opportunity to make a worth-while contribution to society, yet there still exists the problem of surplus young men on farms. So long as these surplus young men are not needed in the cities and cannot find jobs in other occupations, the question arises as to the possibility and desirability of attempting to provide opportunities for more persons to live a satisfactory life on farms. Whether this would involve putting more emphasis upon a "live-at-home" type of program or whether it might involve changes in state and national policies toward farming are also problems for future study.

*An abstract of a dissertation presented in partila fulfillment of the requirements for the degree of Doctor of Philosophy in the Graduate School of the Ohio State University.

New Records Set in Agricultural Education

STATISTICS just released by the U. S. Office of Education indicate that the year 1939–40 registered a number of gains for agricultural education as compared with previous periods. In 1939–40, 8,126 teachers taught in 8,147 departments, an increase of approximately 60 percent over the number teaching in 1934–35. In these departments over 560,000 students were enrolled.

Comparing data for 1939–40 with those for 1934–35 it is shown that the percentage of teachers conducting evening classes increased from 50 percent to 57 percent, and the percentage conducting part-time classes jumped from 22 percent to 35 percent. The percentage of teachers conducting a complete program rose from 13 percent in 1934–35 to 26 percent in 1939–40.

In general, teachers are spending a larger proportion of their time teaching agriculture and less in doing other types of work. The percentage of teachers devoting all their time to teaching agriculture rose from 32 percent in 1934 to 68 percent in 1939-40.

The average annual salary of teachers of agriculture for 1939–40 was $2,000 as compared with $1,781 in 1934–35. During the same period the percentage of teachers receiving travel allowance gained from 36 percent to 63 percent. The salary data varied little by regions, but there was considerable variation by regions with respect to the proportion of teachers receiving travel allowance.

Special Representatives Appointed for Defense Training Program

ELEVEN special representatives for agricultural education have been appointed to supervise the National Defense Training Programs in the several states. These representatives are on leave from their regular positions and will serve on the staff of the United States Office of Education until July 1. Each representative has several states in which he will work, directing the programs of defense training for rural and non-rural youth. Listed below are the special representatives, the regions in which they will serve, and the positions from which they will have a leave of absence.

North Atlantic Region

James S. Champion, County Vocational Education Adviser, Allegheny County, Pennsylvania.

Alfred D. Longhouse, Itinerant Teacher-Trainer, West Virginia University.

North Central Region

Hale H. Brown, Itinerant Teacher-Trainer, Manhattan, Kansas.

Glen C. Cook, Assistant Professor of Education, Michigan State College.

Ivan G. Morrison, Itinerant Teacher-Trainer, Purdue University.

Southern Region

James L. Easom, District Supervisor, State College, Mississippi.

James B. Monroe, Associate Professor of Agricultural Education, Clemson College, South Carolina.

Charles D. Parker, Area Supervisor, Kingsville, Texas.

Marlay A. Sharp, Head, Department of Agricultural Engineering, University of Tennessee.

Pacific Region

Alvin H. Hollenberg, Head, Farm Mechanics Department, California Polytechnic School, San Luis Obispo, California.

Elmer J. Johnson, Assistant State Supervisor, Colorado.

Full-Time Instructors

(Continued from page 101)

which includes trips to diversified and specialized farms near by and thru places of industrial interest, such as paper mills and woodworking factories. Each year one major field trip is taken to St. Paul, Minneapolis, Chicago, or Milwaukee. On these trips, the boys and I go thru stockyards, packing plants, university agricultural campuses, grain exchanges, Land O'Lakes Co-operative Creamery, game and fur farms, zoos, international livestock shows, and outstanding farms in these areas.

Recreation Is Provided

"A parent-and-son banquet is held each year, as well as parties with the boys and programs in their local communities.

"Farming programs carried on by the boys include the raising of hybrid corn and certified grains, developing soil-building programs, keeping and using dairy herd records, and introducing purebred sires and heifers on their home farms. Many other improvement projects are carried out by the boys.

"Publicity is given to the work of the department by having articles in our local daily paper each week. Printed folders are handed out at many of the meetings that I attend and I show safety movies at many social gatherings during the year, at which time I tell about the agricultural course and other courses which are available for rural youth at our vocational school."

Plymouth High School is, I believe, the only high school in the nation hiring an agriculture instructor entirely for the conducting of classes for out-of-school young men outside of the school district. Classes are held on the same basis as at Wausau and the average attendance for the past three years has been 85, with classes held for 22 weeks each winter.

The young-farmer classes at Racine County, Superior, and Wood County operate on the basis more common among young-farmer classes in the nation, being held in the evening for one or two evenings a week. These are held, for the most part, in rural schools. At Superior special emphasis has been given in farming programs to improvement of poultry production, altho improved dairy rations have been developed, lime and fertilizer have been added to the fields, and alfalfa acreage has been greatly increased. Last year there were 245 young men enrolled in these classes at Superior with a 60 percent attendance of 103.

The best percentage of attendance was secured in Wood County, where out of 60 young men enrolled, 55 attended 60 percent of the time.

Current Trends

The trend in Wisconsin is toward the gradual development of part-time programs or young-farmer classes, with instructors giving their full time to this work. The day classes thus made possible provide better opportunity for a practical program of study. The fact that in this type of program the classes for young farmers come first accords the recognition that is due to the true type of instruction in vocational agriculture that can be given to older boys and young men out of school.

Co-operative Sheep Raising

(Continued from page 106)

year is loaned to students on sheep accounts. The boy and his dad sign the note and chattel required to secure such loans. All loans are made for one year, dating August 1. Lambs and wool are usually marketed by June 1, and the note paid off in full. Boys with a flock of ten ewes will usually sell about $100 worth of lambs and wool. After paying for the original ewes, the boy will have about 50 percent left for feed and labor.

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*See complete directory of state directors; state and assistant state supervisors; regional or district supervisors; colored supervisors; teacher-trainers; itinerant teacher-trainers; research workers in teacher-training; supervising teachers; and colored teacher-trainers, in the December, 1939, issue (separate insert).