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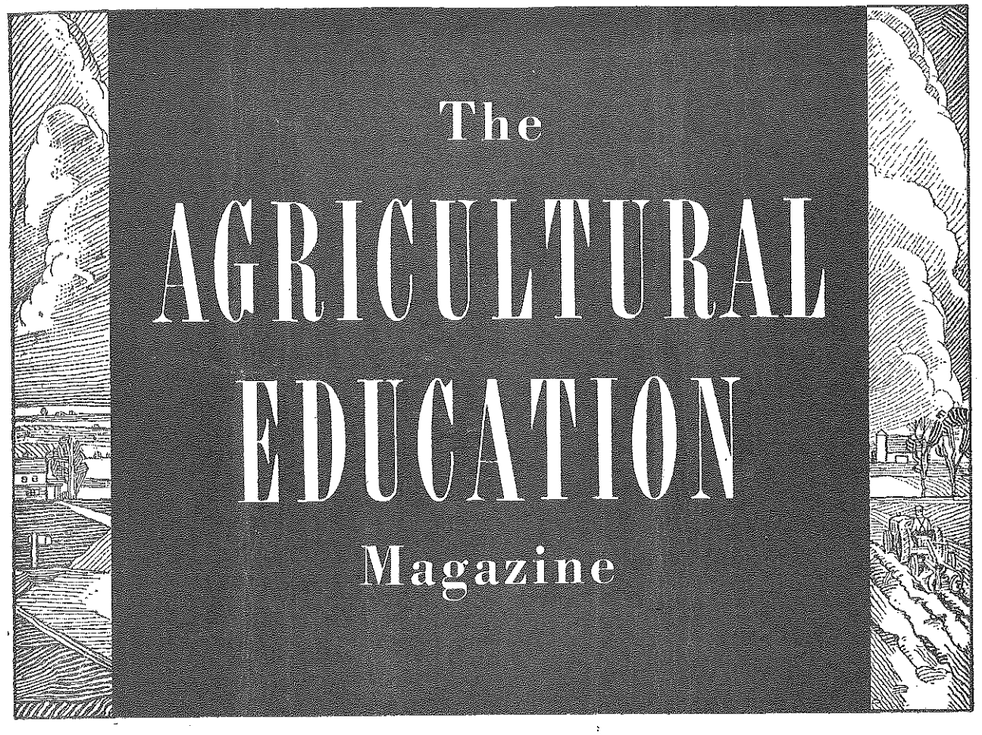

Keep your mind on the great and splendid thing you would like to do, and you will find yourself unconsciously seizing upon the opportunities that are required for the fulfillment of your desire.

—*TONY'S SCRAP BOOK*

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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Editorial Comment

Parent-Son-Teacher Relationships in Vocational Agriculture

SOME time ago the writer was visiting the home farms of young men who were enrolled in classes of vocational agriculture. Two farms were visited on the same day. On each of them was a young man about 18 years of age. The two young men and their fathers were interviewed at some length. The young men were students in the same school. Parents in both cases were interested in having their sons remain at home and become farmers. One of the young men demonstrated intense interest in farming and had tentative plans for establishing himself in the occupation, while the other one indicated little interest in farming.

The interest, attitude, and farming ability of the two young men reflected in a measure their fathers' attitude, father-son understanding, and the practice relative to working together harmoniously in the operation of the farm. The observations made on the two farms stimulated the preparation of this article. It is possible that the opportunity and need to bring about a better understanding of boy nature, instincts, desires, and reactions on the part of parents of students enrolled in vocational agriculture is being overlooked.

It must be recognized that the development of the student depends upon the parent as well as the teacher. In many cases parents find it necessary to make sacrifices in order that their sons may participate in farming activities for themselves and from which they derive a part or all of the income. In other cases they fail to understand how participation by their sons in farming may increase the total farm income. Many parents do not appreciate the opportunity that vocational education in agriculture provides for the development of their sons. Likewise, many teachers are not aware of the problems and difficulties that parents have in providing educational opportunities for their children, especially participation by their sons who are enrolled in vocational agriculture in the present farming program, and an expanding program that will take care of the needs of their sons as they mature and desire to become established in farming for themselves.

Attempts have been made in a few schools to achieve on the part of parents a better understanding of the aims, objectives, program, and results of vocational education in agriculture and of the part they play in making the educational program effective. Constructive programs have been developed in a few cases whereby a series of meetings with parents has been held early in the school year. The meetings have ranged from three to five in number, and in many cases both parents have participated in them. Group meetings have the advantage of becoming impersonal. They make possible an exchange of ideas between parents and the solution of some problems that are not individual but are common problems to a group of students or parents. It is recognized that most teachers are doing constructive work with both parents on their visits to the home farms of their students.

Group discussion meetings have been based on topics such as: (1) the program of vocational education in agriculture as it meets the needs of farm boys; (2) directed or supervised farm practice as a part of the program of agricultural education; (3) farm problems that may be solved in part by the program of vocational education in agriculture; (4) group activities of students of vocational agriculture; (5) parent-son relationships in farm and home activities.

Some activities which may be promoted and directed by a teacher of vocational agriculture to contribute to an improvement of parent-son-teacher relationships and understandings and to help make the program of vocational education in agriculture more effective are: (1) organizing discussion groups for parents of students; (2) encouraging parents to participate in general parent-education programs; (3) having special parent-visitation days in the agriculture department; (4) inviting parents to banquets, plays, F. F. A. meetings, and similar functions; (5) discussing relationship problems individually with parents; (6) encouraging family and home projects; and (7) having students consider farm and family problems when planning supervised farm practice programs and expenditures such as equipment, recreation, and livestock.

A program of education designed for parents of students enrolled in vocational agriculture classes should: (1) improve the practices and methods of guidance at home; (2) point out how parents may individually and as a group co-operate with the teacher in meeting the needs of their sons; and (3) give parents assistance in handling many general problems with their sons.

The program should improve the teachers' understanding of problems of parents and help them co-operate with the parents in some of the many general problems and the specific problems in connection with facilities and time needed for an effective program of farm practice. The improvement of understanding on the part of sons, parents, and teachers should result in an effective educational program for the students and should bring about desirable parent-son relationships in many activities.—J. H. Pearson, Washington, D. C.

Gains Recorded in Co-operation

THE American Institute of Co-operation, which held its school of instruction this year during the second week in July at Michigan State College, was noteworthy in many respects. Not the least of these was the increased attention given to teaching co-operation. Two-hour "educational workshops" held daily featured discussions by four teachers of agriculture from as many states, and by others. These men told very ably of what they were doing to develop abilities in and attitudes toward co-operation. The papers presented by these teachers will appear in ensuing issues.

That leaders in the co-operative movement are becoming increasingly aware of the importance of education in the successful development and operation of agricultural co-operatives was well demonstrated by the large attendance of these leaders at the educational workshops. The keynote of these meetings was sounded again and again by the speakers for the benefit of these leaders, the teachers of agriculture, and other workers in agricultural education; that is, that youth and adults should be taught and are being taught abilities and attitudes in co-operation, not by taking courses to learn *about* co-operation, not by reading *about* what co-operatives are doing in other places, and not even by visiting co-operatives to observe how they operate and serve. They are to learn, and are learning by *engaging* in a co-operative undertaking, studying and solving the problems involved.

There is much that all of us can learn from teachers of agriculture who have taught co-operation by having boys, youths, and adults engage in co-operative undertakings. It is to be hoped that teachers of agriculture will continue to take advantage of the opportunity presented by this institute as it serves other sections of the country each summer to learn of the methods that get results in developing ability and disposition on the part of farm people to act co-operatively.

A Pioneer Passes

E. E. Gallup, former state supervisor of agricultural education in Michigan, died August 1 of a heart attack. He had retired from active service with the State Board of Control for Vocational Education thirteen months previously because of failing health. Prior to this time he had served continuously since the passage of the Smith-Hughes Act in 1917 as the first supervisor of vocational agriculture in Michigan.

Mr. Gallup worked with Walter H. French in establishing the system of vocational education in agriculture in the state. His administration was noted for its aggressiveness in promoting the cause of vocational agriculture, its development of a high professional attitude on the part of teachers, and its wholehearted support of the Future Farmers of America. Much of the growth of F. F. A. chapters and membership was due to his encouragement and guidance. Mr. Gallup was well known outside his own state among the leaders in agricultural education. For several years he was a regional representative on the editing-managing board of this magazine.

A. M. FIELD

Methods

Experiences in Departmental Housekeeping

LAVAN SHOPTAW, Teacher,
Hector, Arkansas

SOME years ago in western Kansas I stood with my superintendent on the brink of an excavation for a school building. Down in the pit below us came a team of mules pulling a slip scraper. The breeching on the mule next to us was hanging on one hip. The middle clip on the singletree had become loose and slipped to one end, causing the mule's load to pull almost entirely from one shoulder. The driver seemed not to notice anything wrong. I remarked to the superintendent that I couldn't drive a mule with its harness in that shape, to which he answered, "Maybe that's why you're up here instead of down there."

Whether that remark was intended as a compliment to me is not important. But I have recalled the statement many times. Perhaps one reason why some vocational students do not develop into the sort of farmers and community leaders their instructors think they should is because these instructors are satisfied to go along with "the breeching hanging on one hip!" The boy who is allowed to leave a vocational agriculture department feeling that peanut hulls and waste paper on the floor and notches in the study tables have nothing to do with his training in vocational agriculture is probably destined to the relief rolls, or, if he becomes a farmer, to the sort that is content to go thru life with "the breeching hanging on one hip."

Visits to a great number of vocational agriculture departments in three different states have revealed a strong tendency among vocational agriculture instructors to neglect or overlook much of the aesthetic value which should accrue from vocational training. Vocational agriculture must do more than develop good farmers from the standpoint of scientific agriculture. It must develop farmers who will come to have the same pride in their farms, farm homes, livestock, farm machinery, and farm communities as the urbanite has in his home, his business enterprise, and his town.

Developing Departmental Pride

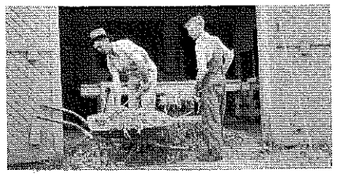
An attempt has been made to convince every boy who has come into the department at Hector that to do something is one thing, but to do it *right* is often something else. A continuous campaign is carried on involving "departmental pride," "a clean place to work," "a place for everything, and everything in its place."

The broad problem of departmental housekeeping may be considered under four headings: the instructor, the building, the equipment, and the atmosphere.

Both the possibilities and the limitations of good housekeeping lie with the instructor. The mode of dress of the teacher can be instrumental in promoting good housekeeping in the department. It has been said many times that there is an appropriate dress for every occasion. At Hector a work uniform of khaki has been adopted. The practicability of such a costume for the instructor is at once apparent. In the first place, it is far more appropriate for shop and field use than woolen clothes.

I shall never forget a visit with a farmer in a community in which I had previously worked as a school administrator. He was comparing the instructor who was there at the time of my visit with the one who had been there during my work in the community. He said something like this: "I can say one thing for———that I can't say for the teacher we have now. He could walk across my lot to see my cattle without worrying whether he might ruin the shine on his Sunday shoes." In the next place, farm boys who, in the South at least, usually wear overalls to school feel a little closer to an instructor dressed in such a work uniform than to one who insists upon wearing a white shirt and what are to them "Sunday clothes."

Neatness and cleanliness are as easily maintained with such a dress as with woolen clothes. Some of the work around a vocational department is more or less dirty at best; and a clean-appearing khaki suit looks better in any classroom, shop, or field than a dirty, white shirt and two-tone shoes which, under such conditions, are impossible to keep clean.



"Raking the shop floor creates less dust"

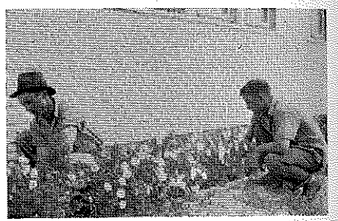
It should be remembered that when a teacher of agriculture goes to a man's farm or approaches the farmer himself in the field he presumably does so with the intention of assisting the farmer in some way. If this is true it behooves the instructor to appear in the role of a neighbor or friend rather than a salesman. A khaki dress does much to break down the suspicion, inherent within the farmer, of anyone from the "outside."

In the classroom there are numerous simple habits that can be adopted and which can improve the response which an instructor may get from his students relative to keeping a clean house. For example, the first piece of chalk allowed to remain on the floor is more noticeable than the next five pieces. Temptation in this regard may be removed by keeping the supply of chalk stored out of sight.

At Hector, wood is used for fuel. After a load has been put in the stove, the floor where it lay is swept—not so much to remove the trash which may have fallen from the wood as to have the students *see it being removed*—a little thing, of course, but any boy who sees such trash being swept up is less likely to throw his waste paper on the floor.

The Building

Here it should be mentioned that last year the instructor had charge of the NYA work program in the school system. This was of tremendous help in the good housekeeping program in the department. There are numerous janitorial



"A campaign was launched to beautify the exterior . . . with foundation plantings and annual flowers"

assignments which are usually not reached by the regular school janitors and which, if not cared for by boys in the agriculture department, will likely go uncared for. It was possible in this way to supply adequate help for such work, and to insist that the work assigned be done. By spreading the NYA allotment thin it was possible to make, for example, one boy's entire assignment consist of caring for the classroom, office, and storeroom, even to the point of going over the furniture regularly with an oiled cloth. A second boy cared for the shop in the same way. As one might surmise, most of these boys were agriculture students and thus had an additional incentive for doing their work creditably. Those who are not so fortunate as to have separate buildings for agriculture are handicapped in this regard. Fortunately, however, the problem of poor buildings is fast disappearing in Arkansas.

There has always been a problem in keeping a shop clean, and the experience at Hector with this problem has not always been happy. The shop floor is of beaten clay, which produces a great deal of dust. A concrete shop floor would simplify the problem considerably, altho it would introduce other problems. It was found that to rake the shop floor rather than attempt to sweep it creates less dust. Such procedure, if done sufficiently often and if accompanied by sprinkling, does much to hold dust in the shop to a minimum.

As has been done in many other departments, overhead lumber racks have been constructed in order to conserve floor space and to render the floor more accessible for cleaning. By so doing, those "junky" appearing piles of scrap lumber have been reduced to a minimum and at the same time the lumber stocks have been made more accessible.

A toolroom and tool checker are used, in contrast to tool cabinets. A different student serves as tool checker each day. This checker is required to place all tools in their proper places, even to the point of removing the bit from each plane and hanging the bit in its proper place. A bench brush is supplied as part of the shop equipment and each boy is required to brush his bench at the time tools are checked in. Special wall cabinets have been constructed for accessories for the power machines.

Last spring a campaign was launched to beautify the exterior of the department building with foundation plantings of annual flowers. Such efforts have had their effect upon housekeeping.

Looking After Equipment

Equipment also has much to do with good housekeeping. In the department at Hector the classroom furniture is homemade of yellow pine lumber. The tables, desks, picture frames, chart racks, library shelves, and bulletin files are finished with orange shellac. The kind of finish is not so important. What is important is that a standard finish has been adopted so as to make every piece seem to belong there as a part of a planned layout.

No one would deny that "paint covers a multitude of sins," but at Hector the slogan has been changed to read, "paint keeps a multitude of sins from ever being committed." A boy will hesitate longer before cutting a notch in a painted or varnished table than in one that is unfinished. For that reason the workbenches in the shop, as well as the tables upon which the power machines are anchored, have been painted.

Just a word about supplementary equipment. The department could have gone along with a table in one corner as a depository for magazines. But a magazine rack enables a boy to walk by, to see at a glance what periodicals are there, and to read as he chooses. The F. F. A. chapter has a librarian whose duty it is to keep the magazines in order. At one time the bound volumes of bulletins lay on a shelf with no method of arrangement. A set of bulletin files was made and the bulletin binders placed behind file guides because such equipment made system possible. If a bound volume has a certain place in which to be filed it is less likely to end up on the floor or to be left on a work table. The enterprise sheets once lay on a table in a corner, in an unsightly condition, difficult to identify. A pigeonhole cabinet sufficiently large for 30 enterprises was constructed, each pigeonhole being labeled. Now, upon returning a folder to its particular pigeonhole, the student is required to place it there with the stapled end to the front, mainly for one reason—it looks better.

A great deal toward making a good housekeeping program in a department can be done with pictures. There was never a truer statement than that "a layman should be able to step into any classroom and recognize the use being made of that room, whether it be for teaching English, history, science, or agriculture." It can be done. But it is so easy with agriculture. Livestock, and rural scenery in general, offer such a wide range of subjects for classroom pictures that there is no excuse for a department of vocational agriculture to go without adequate inspirational pictures. This year collections of pictures—snapshots and various camera shots of F. F. A. activities in summer camp, state and district contests, and state conventions have been placed in the lobby of the vocational building. The plan is to add a new collection each year. These pictures create and maintain interest in the activities of the department and have their influence upon the "real self" of the agriculture student.

Creating Atmosphere

Upon entering the door of the department of vocational agriculture, the boy, it is hoped, will be reminded of agriculture. When he looks at those camera shots such thoughts as "I wish the time for summer camp would hurry and come," or "I hope I can make the dairy judging team this year," or "our department looks much better since we landscaped this front" should pass thru his mind. As a result he is made to realize the fact that vocational agriculture may become for him not merely another source of high-school credit but rather that it may lead him into a new way of life.

A radio is worth much in building up a co-operative feeling concerning the department. Such pieces of "supplementary" equipment afford opportunity for vocational agriculture students to develop pride in their department.

The instructor who cannot gain and hold the confidence of his boys is defeated. But just as truly, the one who can gain and hold such confidence will find that keeping a department of vocational agriculture clean is a fairly easy task. He must do only one thing—create in the boys themselves a desire that it be kept clean.

Making a Monthly Schedule

JOSE C. MENDEZ, Instructor,
Las Marias, P. R.

THE work in vocational agriculture is not only concerned with the education and training of our farm boys, nor the preparation of plans, records, etc. This work must cover wider fields; and it is only thru careful planning and organization that the teacher may succeed. He should definitely plan what parts of the program to carry out during any specific month.

We find that, besides the daily program in teaching agriculture to farm boys, teachers meet obligations with respect to the following:

1—Preparation of records such as:
  a—Summaries of sales receipts
  b—Monthly teaching calendars
  c—Monthly reports on activities
  d—Annual teaching calendars
  e—Lesson plans
2—Organization of a functioning F. F. A. chapter and planning of monthly meetings and activities
3—Organization of part-time and evening classes
4—Y. F. A. organization and activities
5—Agricultural conferences
6—Supervised practice work
7—Visits to farmers of the community
8—Social and recreational activities
9—School farm work and organization of farm projects.

Considering as a whole the nature of the work in teaching vocational agriculture, I have devised a means which teachers in this field may use as a guide.

In this monthly schedule, the most essential jobs to be accomplished during the month have been included, as well as the day of the month for each item.

This monthly schedule is only a suggestion to teachers, and may serve as a guide for the accomplishment of the yearly program of work in vocational agriculture. A schedule such as this can easily be made on any piece of white cardboard or stiff paper and posted on the teacher's desk or in any conspicuous part of the room. Dimensions used are 3½ by 9½ inches.

No.	Monthly Schedule of Vocational Agriculture Items	Day of Month	MARCH 1940						
			S	M	T	W	Th	F	S
1	F. F. A. Meeting	6						1	2
2	Project Supervision	18–19							
3	Part-time Class	5-7-12-14-19-26 & 28	3	4	5	6	7	8	9
4	Evening Class	6-13-20-27							
5	Agricultural Conference	31 a. m.	10	11	12	13	14	15	16
6	Y. F. A. Meeting & Activity	31 p. m.							
7	Monthly Report	23	17	18	19	20	21	22	23
8	Summary of Sales	23							
9	Monthly Teaching Calendar	15	24/31	25	26	27	28	29	30
10	F. F. A. Special Activities	2–4							
11	Visits to Farmers	18–19							
12	Miscellaneous Activity								

Book Review

Your Career in Agriculture, Homer P. Anderson. 285 pp., illustrated, published by E. P. Dutton & Co., Inc., price $2.00. This book offers a brief resume of past and present farm practices with a special word for chemurgy as a means of bringing genuine prosperity to the farm. Many different avenues to successful farm living are presented, but points stressed particularly are the new opportunities that science has recently added to the agricultural picture. This exciting and provocative book should be of interest to all workers in the field of vocational agriculture.—A.P.D.

Supervised Practice

H. H. GIBSON

They Prove Sires in Oshkosh

J. F. WILKINSON, Teacher,
Oshkosh, Wisconsin

J. F. Wilkinson

A CONTINUOUS program of improvement of dairy herds at Oshkosh is showing results. The third annual printed report reveals these results in many ways. This work, started in 1931, has now reached the point where 93 percent of the herds represented by members of the all-day department are in dairy-herd improvement work. In addition, a group of part-time men are working on this practice.

This work is started with the freshman boys during the first month, with the idea that they will continue with it for the four years in school, and also continue after graduation or join a regular dairy-herd improvement association. An organization known as the Oshkosh Junior D. H. I. A. is maintained. A manager, elected each year from the junior or senior class, is responsible for setting up a schedule of testing dates, notifying members of these dates, and handling the matter of equipment, supplies, and collection of fees. Members are supplied with scales, sample dippers, bottles, carriers, ear tags, tag punch, identification forms, and herd-record books.

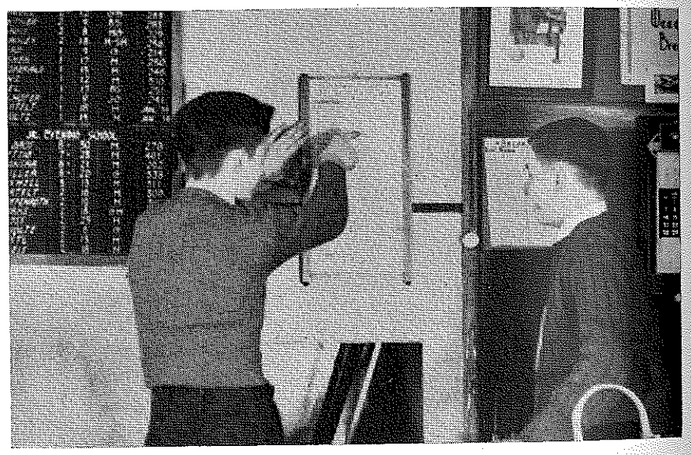
A system has been developed which results in continuous testing and record work. At the present time only two of the entire all-day group have missed a month of testing, and these boys have missed only one month each.

Activity During the Summer

This not only includes the school months, but the summer months as well. A schedule for summer testing, in which three days in each month are set aside for testing, is set up before school closes. This schedule is issued to the members on a printed form near the close of school. The group now has 18 months of continuous testing and records. This probably comes only with years of persistent work, a sound system, and some definite proof of results being obtained.

The printed report shows some of these results in tables covering not only the last year's work, but the averages for the past six or seven years, since a definite system of tabulating results has been used. This table shows a definite increase in butterfat production each year for about three years, both in the percentage of cows in the various levels of production and in an increase in the butterfat of the average, poorest, and best one-third of the group. This increase, it is felt, has come largely as the result of culling. From this point on, any improvement must come as the result of a sound breeding program. Such a program is pictured in the annual report for this year in the case of Quentin Metzig, whose program dates back eight years.

Not a single month has been missed during this period, and excellent work in keeping and using records has resulted in proving two bulls and three brood cows. Breeding intelligently from these animals, together with economical feeding and sound breeding practices, has resulted in an almost steady increase in butterfat from about 330 lbs. up to 402 lbs., the present herd average for 22 cows. Quentin is one of a group of our four oldest members organized into a bull-testing association for the purpose of proving sires and improving production thru sound breeding. This group now owns co-operatively a Holstein sire with an index of 624, proved by a member of this association. Quentin now owns nine daughters of this bull for replacements in his herd. In addition,



Alfred Devens, Oshkosh Junior D. H. I. A. manager, reminds Charles Fernau that he is scheduled to test tomorrow

Charles Ruelke, left, Oshkosh F. F. A. president, turning in record of proved sire to Alfred Devens, manager of the Oshkosh Junior Dairy Herd Improvement Association

he has proved a sire which started in his herd in this association with an index of 458.

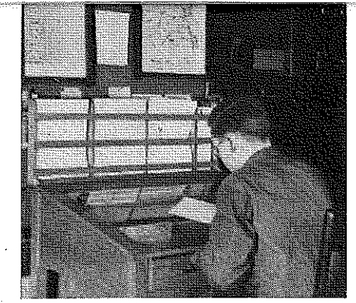
Bulls With Highest Index Still Alive

This report also shows a list of 16 bulls proved by members of the association since 1935. These figures show that about half of these bulls lowered the production of daughters of 300-lb. dams while about half of them increased production. Happily, the highest-index bulls are still alive and in service in members' herds. The equal-parent index is used in these records.

The record books used by most members are a special loose-card type planned by a committee of teachers of vocational agriculture in co-operation with the Wisconsin Dairymen's Association. The association has the covers and cards printed and furnishes these to Junior D. H. I. A. members at cost. Each card is for an individual cow and provides for a production and breeding record for five years. The Oshkosh department develops and uses its own forms for identification, monthly reports, summaries; annual summaries, proved sires, and brood cows.

Herd-Health Program Started

A new feature of the work here at Oshkosh, as explained in the report, is a herd-health program. This is a 16-point program drawn up by the members with the advice of competent veterinarians and dairymen. It is designed to stimulate thought and care in the prevention of infection of herds from outside sources, as well as prevention of spread in the same herd. One feature attracting considerable attention and interest is a placard, designed by the local department and pictured on the report, to be used in barns in an effort to reduce infection of herds from outside sources. These are used by all members and are made available to any dairyman of the community.



Lloyd Foote of Oshkosh using the computer and records bench which is part of the equipment of the Oshkosh Junior D. H. I. A.

The Oshkosh group was recognized as the outstanding Junior D. H. I. A. of Wisconsin and presented with a plaque by the Wisconsin Dairymen's Association at its annual convention in 1939. A picture of the group appears on the front of the annual report.

Launching Boys in Farmer-Training Programs

GEORGE WILLARDSEN, Teacher,
Pahranagat Valley High School, Alamo, Nevada

THE fundamental objective of vocational agriculture is to establish boys in farming. To reach this objective requires much groundwork in developing the correct mental attitude in the parents and in the boy.

G. C. Willardsen

During the past three years, I have made regular visits to the seventh- and eighth-grade classes and have outlined the possibilities of vocational agriculture. The interest of these potential farmers has been gained by pointing out the achievements of some of the outstanding boys of my all-day vocational classes. Some of the projects in actual operation have also been demonstrated. The mental attitude thus established has prepared the way for making a personal visit to the home of each available student and for studying the agricultural possibilities and desires of the boy and his parents. I carefully explain to them the plan for an activity program which consists of contests in judging and identification, hikes and short trips, a longer summer trip, banquets for father, mother, and son, and the plan for supervised farming practice. The point emphasized is that since parents give boys money for clothes and other purposes, it might be better to let them earn their own money on a productive basis, and at the same time pave the way to becoming established in farming.

The first step toward our goal is accomplished when the boy's enthusiasm is aroused, and if he desires to become a farmer we have the parents' co-operation in helping him. He then is ready to enroll in vocational agriculture. Before the conclusion of the first year's work, a detailed farming program, approved by parents and teacher, must be developed by each student. This long-time farming program must be carefully planned. A survey of local conditions, including types of farming, crops, livestock, and markets, as well as accomplishments of successful farmers, will help to make the program workable. Then the boy's own possibilities must be analyzed, and those planned for which are most likely to succeed. The boy's beginning major project, tho it be on a small scale, must be carefully chosen so as to bring success and encouragement. Then his long-time farming program can be built upon this beginning, so that, by following his plan during his four years in high school, the boy is well on his way to being permanently established in a profitable agricultural set-up.

The accompanying table shows a plan for a long-time farming program and the degree to which this plan has been accomplished up to the present time.

Kay is also keeping records on 50 head of beef animals which his father has on feed this winter. His farm-shop activities have included construction, repair, and use of things directly connected with his farm projects. Here, again, he has obtained many new experiences that will help him to become a better farmer.

Other boys in the group beginning vocational agriculture in the year 1937 attribute much of their success to careful planning. The results of their work may be generally summarized as follows: for the years 1937, '38, and '39, 84 percent of the boys completed projects, averaging 3.6 project enterprises per boy. The average labor income was $255.25 a year for each boy.

Boys like to work toward definite objectives. They usually surpass rather than fall short of their planned supervised farming programs if the proper foundation is established in the beginning.

Supervised Practice Program of Kay Wright, Pahranagat Valley High School, Alamo, Nevada

Freshman	1937–38	Sophomore	1938–39	Junior	1939–40	Senior	1940–41
Planned	Accomplished	Planned	Accomplished	Planned	Accomplished	Planned	Accomplished
5 acres corn	4.25 acres corn	5 acres corn	4.25 acres corn	5 acres corn		5 acres corn	
2 acres alfalfa	2 acres alfalfa	2 acres alfalfa	2 acres alfalfa	4 acres alfalfa		4 acres alfalfa	
12 beef cows	13 cows 2 calves 2 steers	16 beef cows	17 cows 10 calves 1 bull	21 beef cattle		28 beef cattle	
1 dairy cow	1 dairy cow and calf	1 dairy cow and calf	1 dairy cow and calf	1 dairy cow 1 heifer and 1 calf		2 dairy cows 1 heifer and 1 calf	
Swine 1 gilt	1 sow and 5 pigs	1 sow	1 sow and 1 gilt	1 sow		1 sow	

In this case, beef cattle is the major project produced under range conditions.

Book Review

Modern Agricultural Mathematics by Maurice Nadler. 315 pp., illustrated, published by Orange Judd Publishing Co., price $2.00. The text comprises sufficient mathematical knowledge for the needs of the agricultural student and worker, and is appropriate for those who have already learned the fundamental operations of computation. Part I deals with measurement of length, direction, area, volume, and specific relationships between different units of measure. Each unit presented is followed by a series of farm problems. Part II gives detailed consideration of dairying, the feeding of farm animals, soil fertility, fertilizers, farm mechanics, finance and management, and provides the necessary skills in calculation. Arithmetic drills, reference tables, and answers to problems are contained in the appendix. This book should prove especially helpful to students and workers in the field of agriculture, and should be decidedly valuable to teachers of secondary school mathematics in rural areas.—A.P.D.

When tillage begins, other arts follow. The farmers, therefore, are the founders of human civilization.—Daniel Webster.

J. B. McCLELLAND

Farmer Classes

O. C. ADERHOLD

The Advisory Council; Key to Success With Adult Classes

C. W. DALBEY, Teacher, Spencer, Iowa

WHY do some evening schools succeed and others fail under apparently similar conditions? This is always a popular question for discussion by teachers of vocational agriculture, teacher-educators, and supervisors alike.

Varying answers are given to the question. The professor of education under whom I studied laid particular stress on the ability of the teacher to make the subject of the evening-school meetings interesting and attractive. The type of community in which the school is located and the personality of the teacher are often mentioned as factors contributing to the success or failure of the school. Perhaps the question that answers many others is: "Does the teacher make the farmer feel that he is missing something very worth while if he fails to attend an evening-school meeting?"

An opportunity to test the theory and practice of evening-school technique came with my first position teaching vocational agriculture in a small community in northern Iowa. The community was noted for its advanced thinking along agricultural lines and had set up a department of vocational agriculture in the high school in 1926. During the first years, evening schools for adult farmers were very successful, but later years found only a handful of men attending the meetings. The original enthusiasm had almost completely died out, and something was urgently needed to revive it.

Renovating a Program Gone "Stale"

The first step, taken with the help of the superintendent and the school board, was the selection of an advisory council to act as a co-ordinating and policy-forming body for the evening school. After the selection had been completed, a meeting of the group was called at the high school for the purpose of selecting a subject for the evening-school meetings to be held during the coming season. Here one of the difficulties of previous years came to light. Such basic subjects as "Feeds and Feeding" and "Farm Crops" had been used so often, the council agreed, that they no longer were interesting. With this as the starting point, the radically new and different subject of "Farm Law" was suggested and accepted by the council. Only one school in the state had previously tried that subject.

Meetings began in November, after the lessons had been carefully prepared and the members of the advisory council had gone thru their neighborhoods, "drumming up" attendance. Approximately 45 attended the first meeting and an earnest attempt was made to stimulate a discussion so interesting that word of the meetings would spread thru the community. That approach proved to be successful. Attendance was better at each succeeding meeting. At the conclusion of the winter series the figures showed attendance to be more than triple that of the preceding year. The meetings ended with a trip to St. Paul and Minneapolis, conducted co-operatively by the evening schools in the county.

During the following year the evening-school topic was farm mechanics. The same plan was followed and the average attendance jumped to an average of 72 for the series.

Group Planning for Large Schools

Experience with large evening schools has continued at Spencer, a town of 6,500 in northwest Iowa and the home of the well known Clay County Fair. The Spencer evening school had 123 farmers enrolled during the past winter, with an average attendance of 107 at each meeting. A discussion of the plan used here will best illustrate some of the techniques which seem to be the secret of successful evening schools.

The advisory council plays an important part in the success of the Spencer evening school. When the vocational department was started four years ago, the council was picked by the vocational teacher, with the assistance of the superintendent, the county agent, bankers, and others having an acquaintance with the farmers of the community. In selecting the first evening-school council, care was exercised in selecting men who would be influential in putting the project over in their respective communities, and willing to accept any responsibilities which accompany a position on the evening-school advisory council.

The present council is composed of eight members located in different sections of the community. The evening school is divided into eight groups of approximately 15 men in each group, with a council member as the group leader. The personnel of each group consists of farmers living in the community surrounding the council member or group leader.

During the month of August, a meeting of the advisory council is called. This is primarily a meeting for the selection of subject matter for the next evening series. The council is assisted by the results of a survey, filled out by each farmer at the close of the previous evening-school series. Considerable time is spent in selecting the lessons, since it is important that the meetings must not only be interesting and practical, but also carry an attractive title. Titles which proved to be attractive during the past winter were:

1. What is the outlook for farm prices during 1940?
2. Should I raise soybeans or flax?
3. Is this the time to buy a farm?
4. Does it pay to keep records?

The Enrollment Depends on the Council

During the months of September and October, the council members secure the enrollment in their respective groups. This is done thru contact at community meetings, by telephone, and thru personal visits of the council men to the homes of the members. An attempt is made by each council member to secure the members of his group in his home community if at all possible. This facilitates any personal visits or telephone calls which may be necessary to contact the members from time to time.

The enrollment secured, the council member proceeds to list the members of his group on a form which is made up and provided for each group leader.

AFTER the names of the group have been entered on the attendance record, the council member sends the attendance-record sheet to the instructor for filing. This record is first used in published articles in the local papers pertaining to enrollment for the coming series. Sometimes a program booklet is printed listing the topics for discussion and the members of each of the groups and its leader. At the beginning of each meeting the attendance committee, composed of two members on the council, secures the attendance-record sheets and passes them to the various group leaders, so that they may check the attendance in their groups. All evening-school members are seated in their respective groups, so that attendance can be taken easily and quickly.

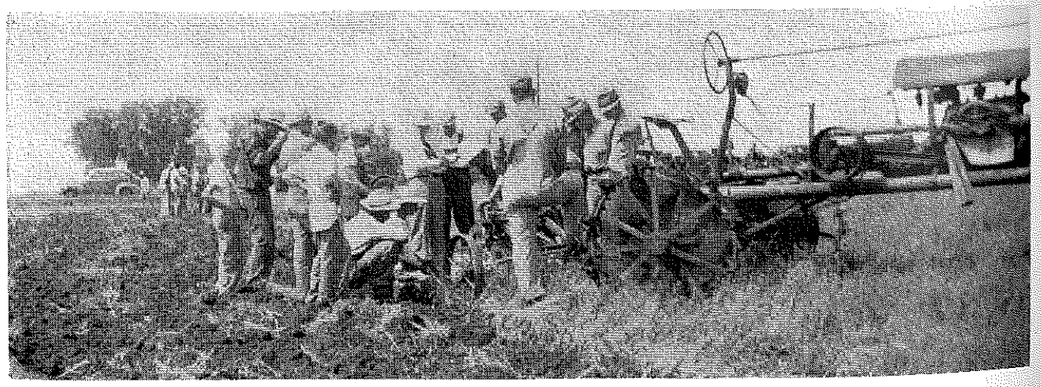
During the course of the lessons, the council is called together at various times for short meetings on such matters as: selection of outside speakers, banquet plans, or evening-school tours. At these meetings it has been found wise for the instructor to stay in the background as much as possible, making the men feel it is their program and not the instructor's. The instructor should feel free, however, to make any suggestions deemed necessary.

Maintaining Continuity From Year to Year

Toward the close of the year, two new council members are elected to fill the vacancies of those serving their fourth year on the advisory group. The present set-up consists of eight members, with two going off the council each year. The voting is done by handing each member of the group selecting a council member a list of the names in the group, from which he checks one. After the new council members are elected, the group assembles in an organization meeting. At this time a chairman and a treasurer of the group are elected. The organization meeting held just previous to the writing of this article provides for four committees, including a program committee, attendance committee, banquet committee, and trip committee, each committee composed of two council members. Additional plans for next year include the use of the chairman of the advisory council for opening the meetings and for conducting any business to be handled, preliminary to the regular meeting.

At the close of the winter series of meetings, an evening-school banquet is held. At that time attendance certificates are given to all those attending eight or more of the ten regular meetings. At the end of five years a gold key is awarded to those attending all meetings during the five years.

(Continued on page 78)



Follow-up meeting on plow adjustment on the farm of an evening-school member

For All the Farmers

WILLIAM J. TURNER, Teacher,
Odebolt, Iowa

TWO objectives set up for adult classes in agriculture at Odebolt have been, first, to provide an opportunity to share experiences and problems, and to obtain new information; and second, to create a spirit of fellowship among the people of the community.

The enrolled membership each year has been between 100 and 110 men. During these years we have made an attempt to accomplish the objectives which were set up for it when it was organized. Two hundred sixty-one men have been enrolled and have attended at various times the Odebolt Farmers' Evening School, since it was inaugurated six years ago.

To accomplish the objectives set up we have had the full co-operation of the farmers, businessmen, and board of education.

Odebolt is a town of about 1,400 people surrounded by a good farming territory. The average farm is about 160 acres. About 40 percent of the farms are tenant-operated.

How the Council Is Organized

The superintendent, board of education, and teacher of vocational agriculture selected a group of six men to form the first evening-school council. It is the council's duty to enroll members and to help the instructor to plan the program and carry out activities of the group. Two years after the evening school started we added five more council members. We divided the evening-school enrollment into 11 groups of 10 men each. One council member is in each group. Each winter at our last meeting we elect new council members. The groups can re-elect their old council members or select a new one to represent their group. Council meetings are held the second Wednesday of every month.

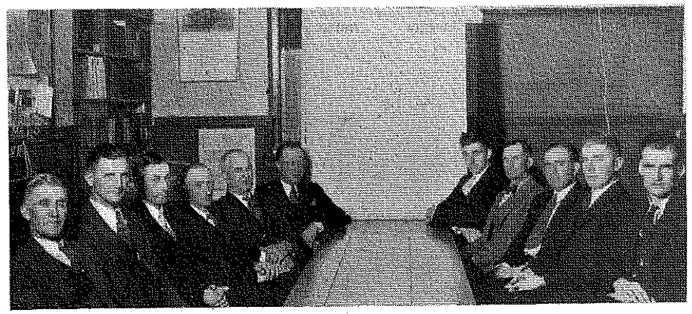
At one of the later meetings each winter a questionnaire dealing with subjects for the next winter, and a final statement of the intended new projects or old projects continuing for the coming year, is filled out by the members. With this indication from the group the council also considers the previous subjects discussed, the community needs, and existing economic conditions before making the final choice of subjects.

We have found that visiting our state agricultural college at Ames is an inspiration and a help to our council in preparing the program. It not only gives the council members an opportunity to see what is new in a particular field, but also an opportunity to meet the various men in the departments. These specialists make suggestions for the winter program.

Instructional Procedures

We assign every member of the evening school a seat in our assembly. This distributes our council members about the room, and is a big help in carrying on a discussion. Each year we have two or three specialists from the extension department of the college appearing on our program. We also use our members in debates and round-table discussions. Probably 80 percent of our members take part in the meetings at various times during the winter.

We open our meetings with 15 minutes of music, mostly group singing, with one special number each night. Following the 90-minute meeting we go to the gymnasium where the commercial club serves coffee and rolls. This gives the men a fine opportunity to visit and to discuss in small groups various problems brought up in the meeting. Those interested in volley ball enter into that sport.



"The council considers previous subjects discussed, the community needs, and existing economic conditions before making the final choice of subjects"

Results in Terms of Supervised Practice

In our supervised practice program we encourage every member to put into practice something new he has obtained from the winter meetings. Thruout the course we stress the putting into practice of those things which will fit farmers' conditions. Some which are being practiced following our winter meetings are: ear-marking litters; weighing pigs at birth and at eight weeks; keeping feed records; using sanitation practices; and crossbreeding. We encourage the men to report their results the next winter at our meetings. These projects are more effective when a few follow-up meetings are worked in. We believe the success of a supervised practice program de-

practices some of the things he learns and proves them successful, he will be back next year. Farmers don't go to evening school just to visit.

A spirit of fellowship and co-operation is being developed between the town and country people. When the evening school was organized the businessmen served coffee and rolls following each meeting. They also helped to put on the annual banquet. The farmers in return invited the businessmen to go on their evening-school tours.

During the past winter, in addition to our 10 regular farmer meetings, we held two forums, a social night, and a banquet. The forums were on social subjects of interest to both town and country. They were sponsored by the men's and women's evening schools, with the businessmen and public being invited to attend. The week before our annual banquet, the evening school sponsored a social evening and an oyster stew for the businessmen. Games and contests were held, with the idea of mixing the farmers and businessmen together. Many new friendships are formed at these gatherings.

Last spring the second annual evening school-businessmen's picnic was held. The business places were closed and everyone came to the local park for a good time. During the winter the businessmen were divided into as many groups as the number of meetings held, with one group serving at each meeting. With the evening school and businessmen divided into groups it was an easy job to mix the town and country people. We took one evening-school group and one businessmens' group with their families and assigned them to a table. A town woman and a country woman from these groups planned the menu and solicited food for their table. There were 10 of these tables in the park. About 50 or 60 people comprised each group. During the afternoon various contests and games were worked out with competition between the tables. Agricultural produce was given as prizes. The last event of the afternoon was a kittenball game between the businessmen and farmers. These picnics are looked forward to by both groups.

Special Features

Since picnics are held only on odd-numbered years, we make an evening-school tour on the even-numbered years. Businessmen are encouraged to go. Tours are usually made to the larger cities.

A corn and cake show is held each fall before the evening-school opens. To date this show has been limited to evening-school members. In the evening music and a play program are presented by the evening-school members. Two one-act plays are usually given by the members. The public is invited to both the show and program.

Early each fall we publish, thru the co-operation of the local paper, a small booklet giving a program of events for the winter, the membership, and other facts dealing with the previous winter's work.

At our annual banquet we present each man who has the attendance requirement for graduation a 25- or 30-page booklet summarizing the winter's activities and lessons covered.

Thirty percent of our present evening-school members have been enrolled since the school was organized. Ten percent have not missed over five meetings in the last six years. We have not postponed a regular meeting in the last four years, even tho we have had several nights of bad weather.

With the program and activities of the evening school being developed and carried on as they are now we should reach the goal of all good communities—that of a better place in which to live.

Establishment in Farming

G. S. DOWELL, Teacher, Quail, Texas

THE out-of-school youth movement is gaining momentum and is forcing itself on the attention of public-school people everywhere. Administrators and vocational teachers, especially, are showing an ever greater concern about their students after they leave school. Those in charge of vocational departments are attempting to solve the problem thru part-time and adult programs; and vocational teachers who want to stay in the forefront of their profession must give more and more time, thought, and attention, especially to their part-time program.


G. S. Dowell

In some communities the problem is one of determining what can be done with boys who have dropped out of school before completing their high-school or even the elementary-school course. In other situations the chief problem is to care for boys who have completed high school, but who, for some reason, have not entered college nor have yet become established in farming. In most communities where vocational agriculture is taught there are few industries into which out-of-school youths can be directed. Thus, the decision to be made by the teacher of vocational agriculture is between the alternatives of aiding the young men to become established in farming or of neglecting that part of the vocational program.

Opportunities at Quail Are in Farming

While at Quail we have both drop-outs and high-school graduates, we have directed our attention particularly to those boys who have completed high school and are not financially able to attend college. We have no industries and no occupations for a young man to engage in except farming. There are about one hundred families in our school district who are being re-established in farming by the Farm Security Administration, and practically all of the others are in the low-income group. The family budget will hardly permit an item for college expenses and it is up to the part-time program to reach these boys.

A Boy Facing Real Difficulties

We have a boy graduated from high school whose family was not financially able to send him to college. He had followed a supervised practice program while in high school which would normally have set him up in farming by the time he graduated, but owing to hospital bills and other reverses the family had to have part of his savings to meet expenses. He was graduated from high school with no definite purpose in mind. Because of age and poor health his father was no longer able to operate the home farm, so in the part-time class we worked out a plan by which the boy would take over the home place to farm at home on a definite allowance. After one year he is a real farmer, ready to marry and become a substantial citizen of the community.

TWO brothers took vocational agriculture while in high school, and they made some money on projects. The family was being rehabilitated by the Farm Security Administration and was not able to let them have all of their labor income on their projects. It was all put into the family budget except the colts from two mares, which they had started as a project the first year they entered high school.

There was a lot of native pasture on the farm their father rented so they managed to keep their colts on the pasture, supplemented by small amounts of feed during the winter. One boy graduated a year ahead of the other. The superintendent of the school tried unsuccessfully to secure a scholarship for him at one of the state colleges.

The part-time school took up the problem and the vocational teacher helped the boys trade their horses and young work stock for a down payment on a tractor and two-row equipment, and rented 400 acres of land. Crops were especially late that spring because of the severe wind erosion until late in June. A younger brother helped the oldest boy run the tractor (both day and night part of the time), while the other brother went to the harvest and made enough money to buy the gas and oil to make the crop. Their father contributed the board bill to the project. The job was done and the young men were established in farming, but not until the whole plan had been worked out in the part-time class. Students may be prepared in high school but it is the out-of-school program that functions and gets immediate and lasting results.

Non-Farm Boy Makes Good

Another ambitious boy, a junior in high school with a high scholastic aptitude, whose father was a salaried man and able to keep him in high school and pay all necessary expenses, began to wonder if Dad would be able to send

family budget did not indicate that he would, so the boy came to the part-time class and said to the teacher of agriculture: "If these out-of-school boys can make money and establish themselves in farming without any money or support, why can't I, even before I graduate from high school?" The family did not live on a farm but the boy had been taking vocational agriculture two years, had carried some feeding projects, and owned two registered sows for pig production. He had also worked for neighboring farmers during the summer and had saved $200 from his projects and labor.

The case was taken up and the boy found a small farm he could rent by buying four mules and some one-row equipment. It was found that by making a down payment of the $200, the Production Credit Association would finance him until he made his first crop. He moved his two registered sows to his farm, bought a registered Jersey cow and 20 purebred ewes, and put them on pasture. In this way he provided himself with a job during the summer and secured necessary experience under the direction of the vocational teacher.

At the end of the first year he had his four mules and farming implements, a registered cow and calf, 20 purebred ewes, and two registered sows paid for, with enough money in the bank to make another crop without borrowing. This year he is a senior and will not only

enough money to pay his college expenses the first year. He has arranged to furnish a W. P. A. family with its rent for looking after his livestock during the winter and, if he can get a job at college to make part of his expenses as he goes, he will pay all his way thru college, and will be established in farming when he graduates.

Influence on the All-Day Program

I took the last case from the all-day program in order to show that the part-time program may prove a powerful influence on the all-day program by leading the high-school boys to improve their supervised farming program in order to become established in farming by the time they graduate from high school or as soon thereafter as possible. It not only takes care of part of the out-of-school youth but furnishes concrete examples for the other out-of-school boys and members of the all-day classes. Every part of the four-legged vocational agriculture program of all-day classes, day-unit classes, part-time program, and adult work reacts on every other part. Wherever a good piece of work is done in the all-day classes, it makes it easier to put over a program in one or all of the others, but no part of the program lends itself to doing immediate good and makes us a part of a great movement more than the part-time work.

Evening-School Instruction That Gets Results

H. N. HANSUCKER, Assistant Supervisor,
Charleston, West Virginia

TEN years ago a teacher of the writer's acquaintance set as his major objective "To expand and improve potato growing and marketing in the community." Since then this teacher has conducted an evening school each year on potato growing. He teaches practically the same job to the same individuals, but the problems studied by these men are usually different as they are always raised in terms of the previous year's experience. Since the organization of this class, the members have not only improved their practices, but they have increased their planting from less than 100 bushels of seed to over 2,000 bushels. They are now organizing their own marketing association. Probably none of these members would want to discontinue their evening-school program on potato production.

It would seem that one essential of an evening-school program is that it be of such scope that to accomplish it or to insure its maintenance continuous educational classes will be required for many years. Other basic principles might be listed as follows:

1. The teacher must know personally each farm and farm operator. He must know the farmer's problems as well as what practices the farmer has used in previous years.

2. The teacher should have some definite major objective in mind which he hopes to accomplish thru his evening-school instruction. Such an objective should meet with the approval of local farmers and evening-school members.

3. The content of the course of instruction should be based on not more than one or two enterprises or on one common problem which cuts across several enterprises. Examples are: poultry production, alfalfa, soil conservation, or farm management. If noticeable results are to be obtained, it is far better for the teacher to select and emphasize one or two things in which he can become a specialist and on which he can accomplish much, rather than to attempt to cover a variety of enterprises, jobs, and problems which might result in only a few varied and intangible accomplishments.

4. The course for each school, like the major objective, must be based on needs that are recognized by most of the farmers. For example, in a course on potato production, it would be of little use to include the job of "spraying" unless there is a need for teaching it.

5. After the content for each evening-school course has been selected, definite minor objectives should be set up corresponding to the jobs and improved practices which will be taught. For instance, if the job of "spraying potatoes" is to be taught, the teacher might set up as a minor objective "To get 30 farmers to spray their potatoes."

6. Conference method should have a prominent place in teaching adult farmers. The procedure used in teaching the group has a tremendous influence on the results to be attained. Many successful teachers use the following procedure: *First*, they secure from the members their problems relating to the job under discussion. These are listed on the blackboard or on chart paper if no blackboard is available. *Second*, the teacher, acting as discussion leader, guides the members thru the channels of straight thinking on the problems to reach definite conclusions. During this step, it is necessary that the teacher make use of appropriate visual aids, success stories, and experiences of members of the class to assist the group in reaching the right conclusions. As the conclusions are reached, the teacher should make it clear that the conclusions are those of the group and not merely a few statements the teacher has listed for them. *Third*, the conclusions should be listed on the blackboard and later mimeographed or typed, and copies distributed to the members at the next meeting. After all conclusions have been reached, they should be reviewed briefly and "clinched" in the minds of the members before adjourning.

7. Timely follow-up visits and contacts by the teacher are essential. One or more visits should be made to each member while the class is in progress and a minimum of two or more other visits during the year. The teacher should also take advantage of every opportunity to discuss the new and improved practices with the members individually.

8. In doing follow-up work, it should become a regular practice to: (1) Discuss with the farmer the major farm practices agreed upon in class and ask him to decide whether he is carrying them out. (2) Give encouragement towards carrying out new and improved practices. Relate successful experiences other members are having with certain improved practices. (3) Keep objectives before the members. (4) Ask the farmer occasionally for his opinion of the evening-school program and for his suggestions for its improvement.

9. A few other points which should also aid the vocational agriculture teacher in getting results with his evening-school program are as follows:

a. Arrange for educational tours, especially to the farms of other members who are applying the new or improved practices. This activity usually proves inspirational as well as beneficial.

b. Become specialized in the subject which is being taught to the class of adult farmers.

c. Make use of individual and group demonstrations. For example, if one or more farmers are not spraying their potatoes correctly, the teacher might give each farmer a separate demonstration or call all or part of the members together for a group demonstration.

d. Have members organize themselves into groups for carrying out certain practices. Occasionally, such an organization is formed for experimenting with various practices.

e. Encourage each evening-school group to form an organization. Such an organization might formulate its own constitution and by-laws, set up its own objectives, and outline its own educational program with the assistance of the local teacher of vocational agriculture. This plan tends to place more responsibility for the school on the local members.

f. Stay with the same group for several years, if not continuously. Don't try to organize a new group in a different community every one or two years.

g. Assist farmers in obtaining loans to finance desirable, new, and improved practices when necessary.

L. B. POLLOM

Farm Mechanics

Planning Instruction in Farm Mechanics for All-Day, Part-Time, and Adult Groups

I. G. MORRISON, Teacher Education,
LaFayette, Indiana

I. G. Morrison

THE ultimate or long-time objective of instruction in farm mechanics should be to prepare the student (1) to do the mechanical jobs of repair and maintenance, as well as some of the more simple construction jobs that the better farmers of the community find it profitable to do, and (2) to make satisfactory decisions relative to the mechanical aspects of his farming business.

The details of instruction should vary with the needs, interests, and abilities of the students with whom we are working. Variations will be found in:

1. Farming status and abilities of the students
2. Emphasis on type of objectives according to type of students
3. Emphasis on different types of teaching procedures according to type of students, and
4. Types of course content according to type of students.

Since most of the mechanical jobs on the farm are those of repair, a farm-mechanics course should include a large proportion of actual repair problems in as near a natural setting as possible.

If we accept the analysis on the next page as being essentially correct, it would seem advisable to plan instruction to meet the needs of each individual group.

Meeting Needs of All-Day Pupils

Since the program for all-day students extends, in most states, over a four-year period, it is suggested that jobs be distributed over a four-year period.

Any distribution of farm-shop jobs should be reasonably flexible. It is reasonable to assume that some jobs will naturally be repeated from time to time and from year to year. It should be equally obvious that some jobs will be within the capabilities of the average first-year student and can very well be taught successfully then, whereas other jobs, of equal or greater interest to him, will be beyond his ability to master quickly. Such jobs should be deferred until he can master them with considerable self-satisfaction. It should be recognized that not all students can become skillful in all the jobs offered to them due either to physical or mental limitations. Offered a wide variety of jobs, the average student will become proficient in a satisfactory number of them. Mastery of a relatively few significant jobs is more desirable than mediocre preformance and limited understanding of a large number of equally important jobs. The later years spent in farm-shop work should consist of a measure of natural repetition of earlier jobs and advancement to new jobs of relatively greater difficulty and wider application.

Many jobs will, of necessity, be eliminated in some situations because of lack of time or physical facilities. Many jobs will likewise be eliminated as being less suited to a situation than others.

None of us is sufficiently proficient as teachers, nor are our students sufficiently receptive to enable them to become first-class mechanics in the time usually assigned to farm-shop work in our high schools. We usually do have sufficient time, however, to lay a solid foundation of fundamental mechanical skills and abilities, which will enable the student to maintain and repair his farm machinery and equipment in a satisfactory manner.

Suggested Distribution of Farm-Shop Jobs

First-Year Jobs:
- Simple tool fitting
- Simple cold-metal work
- Harness repairing
- Simple drawing or sketching
- Simple woodwork and carpentry repairing
- Simple sheet metal and soldering
- Rope work: knots, hitches, and splices
- Simple electrical repairing
- Simple plumbing repairing
- Home-farm shop planning

Second-Year Jobs:
- Advanced tool fitting
- Advanced cold metal work
- Simple forge work
- Woodworking and carpentry repair and construction

Third-Year Jobs:
- Advanced forge work
- Woodworking and carpentry repair and construction
- Electrical repairing and wiring
- Concrete construction
- Plumbing repairing and extension
- Farm drainage
- Power machinery repairing—farm engines

Fourth-Year Jobs:
- Advanced forge work
- Electrical repairing and extension
- Woodworking and carpentry repair and construction
- Field machinery repairing
- Power machinery repairing—farm tractors
- Farm fencing

Instruction for Part-Time Students

Some part-time students will have had all the training offered in the high-school farm shop; others will have had no training; while still others will vary in amount of training and experience between the two extremes. All should have such fundamental training in manipulative skills as will enable them to carry on successfully the work in which they are particularly interested. With such a heterogeneous group, the teacher will be compelled to fit the course to the needs of each student.

This indicates that the administration of a part-time course in farm-shop work may be a more difficult task for the teacher than that of teaching the all-day students.

If each student is to be treated as an individual, with individual needs, interests, abilities, and attitudes, a set course may fall wide of the mark for many students. Therefore, it would seem that a set course should be avoided, except perhaps as a starting point, or as a feeler, and embarked upon with the intention of abandoning it as soon as it is practical to do so.

What is the teacher doing with reference to part-time and evening-school courses in farm-shop work at present? An analysis of samplings from reports of a few of our teachers indicates that approximately the same jobs are taught in both part-time and evening classes, with certain types of work being about equally popular. For instance, more courses contained tool sharpening and handle fitting than any other one thing. Next in popularity with the part-time group was farm carpentry and construction work, while forge work was the second most popular course with the evening group. Soldering, saw fitting, and farm field machinery repairing were equally popular with both groups.

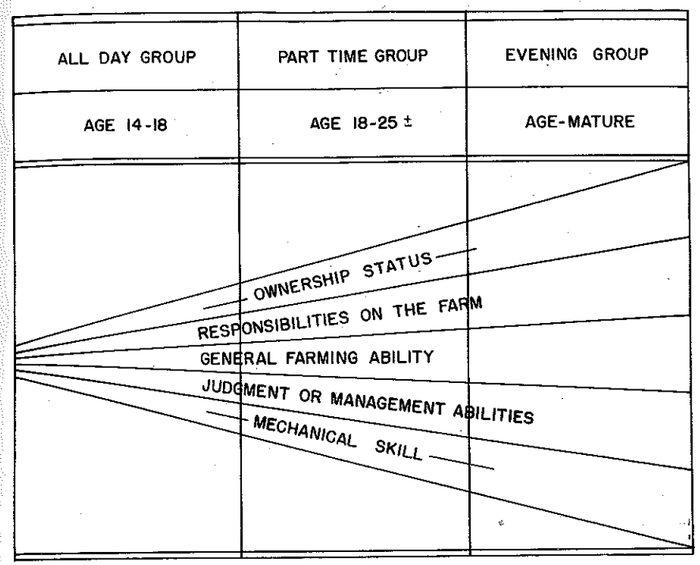
In very few instances was any evidence given that the teacher recognized any difference between all-day, part-time, or evening groups of students. The writer's impression is that in most cases exactly the same work is offered to all three groups.

The jobs performed by some of the classes indicate a wide variety of practical repairing, together with some specific construction jobs that were needed. The repair work ranged from sharpening hand tools thru overhauling farm machinery. The construction jobs included clevises and sweep rakes, a cord-wood saw frame and wagon boxes, a piano bench and a hall tree.

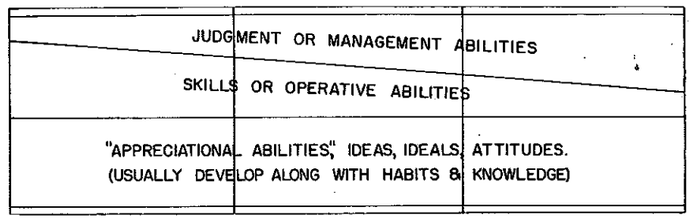
Not one teacher in his report indicated that he felt that it was his business to encourage the establishment of any of his group in farming, nor has any teacher taken any particular pains to point out that any student has done a thing to further his own ends. The type of work done may not be so much open to question as is the emphasis. Why not encourage the part-time boy to build a hog house for himself, rather than for some one else? Why repair some one else's mower, when he could buy an old one and repair it for his own use? By part-time school participation, an interested, energetic boy can assemble the essential equipment to operate a farm by the time he is ready to do so, and can find someone from whom to rent a farm. Encourage him to start and build up a "farm-machinery hope chest."

Analysis of Farm Mechanics Instruction According to Groups Served

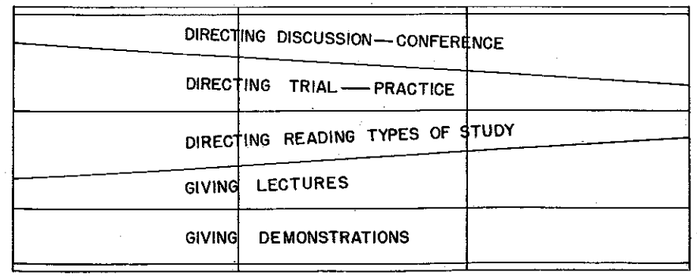
I. VARIATION IN FARMING STATUS AND ABILITIES OF THE STUDENTS



II. VARIATION IN EMPHASIS ON TYPE OF OBJECTIVES ACCORDING TO TYPES OF STUDENTS*



III. VARIATION IN EMPHASIS ON DIFFERENT TYPES OF TEACHING PROCEDURES ACCORDING TO TYPES OF STUDENTS
(Activities of the Teacher)



IV. VARIATION IN TYPE OF COURSE CONTENT ACCORDING TO TYPES OF STUDENTS

LARGELY OPERATIVE JOBS AND SKILLS	COMBINATION OF OPERATIVE AND MANAGERIAL JOBS	LARGELY MANAGERIAL JOBS. VERY FEW IF ANY OPERATIVE

*Objectives—end results to be achieved in terms of human abilities.
1. Habits or skills necessary to carry out mechanical operative jobs.
2. Knowledge—functional understanding of basic facts and principles enabling one to make mechanical judgments or decisions.
3. Ideals and attitudes—convictions of worth, willingness to do—which increase the probability of knowledge and skills being used.

A course leading to such preparation might well be set up as follows:

Managerial
1. Deciding kind and amount of equipment needed.
2. Deciding whether to buy certain pieces of equipment.
3. Deciding kind, type, and extent of repairs necessary or desirable.

Operative
1. Cold-metal work as part of farm machinery repairing.
2. Forge work as part of farm machinery repairing.
3. Tool fitting as required in doing other work.
4. Farm carpentry construction and repair work as it applies to the individual.
5. Harness repairing, as indicated by the needs of the individual.
6. Sheet metal and soldering, construction and repairing, according to the needs of the individual.
7. Knots, splices, and hitches with rope as indicated by interest and need.
8. Farm electricity, as indicated by specific needs.
9. Farm field and power machinery repairing.

A course of this type may be co-ordinated with other courses in agriculture, and administered at the same or at different times. Such co-ordination will contribute much to the usefulness and efficiency of vocational agriculture in its larger sense.

What Do Our Evening-School Members Want?

As indicated previously, virtually the same kind of instruction has been offered to all three groups. But the adult group has problems quite different from the other two. The members are not particularly interested in doing jobs to improve their manipulative skill, except in a few instances. They are, however, interested in new ideas, and what is going on in the farm equipment world. They will sit absorbed and argue the merits of this or that piece of equipment by the hour. They will listen more or less patiently to a third party, if he has something to say. They will enter into a discussion between themselves and a third party if the third party is informed and skillful. The third party should be the local teacher or his representative.

With this group, practice and trial as methods of teaching are of relatively less importance than the discussion, conference, and lecture method, particularly if judicious use of the demonstration is made.

For instance, they will listen to the instructor talk about "lead" in a mowing machine cutter bar; they will offer suggestions, or make observations about their own experiences; they will watch the instructor demonstrate how to secure "lead," but when it comes time for them to do the job themselves, two or three out of the group will actually do the work, half the group will watch and comment, while the remainder of the group discusses local politics.

For greater effectiveness, let us concentrate on the lecture-discussion demonstration method, and insofar as possible, in a natural setting—*viz*, in the farm shop.

An infinite variety of activities of

interest to the adult may be handled as above indicated, to name but a few:

1. A study of farming equipment from the various economic standpoints of usefulness, size, cost of operation, service facilities, resale value, longevity, reliability of dealers, and many others.
2. Economic and mechanical considerations involved in deciding whether to rebuild and repair an old piece of equipment, or to replace it with a new piece, modern in design, materials, and workmanship.
3. Deciding whether horse or mechanical power should be used, or a combination of the two, and what kind and how much equipment would be necessary for satisfactory and economical operation.
4. Rural electrification: how to get it, and what to do with it after it is secured.
5. Farm buildings, building materials, modern design, location, etc.
6. Farm fencing.
7. Any other problem of a mechanical nature in which the group as a whole is interested.

Supervised Farm Practice in Farm Mechanics

Supervised farm practice probably assumes greater importance at present with the all-day group than with any other. Teachers of vocational agriculture are apparently finding it difficult to include farm-shop work in their plans for supervised farm practice. Most supervised farm practice programs worthy of the name have many real farm-life problems that can and should be anticipated —and solved in the farm shop. For instance, the expanding swine herd needs more individual farrowing houses, drinking fountains, feeders, and fences. The feed-producing part of the program requires feed bins, hay storage, and seed-treating equipment. The examples might be expanded indefinitely.

Too many of our teachers look upon the shop as a place for the boy to produce a "project" which may have no relation to his major activity as indicated by the supervised farm practice program. This procedure smacks of "busy work."

Supervised farm practice programs growing out of farm-shop instruction for part-time and evening groups should be directly related to the work as done during the organized instruction period. Over-emphasis of the supervised farm practice requirement might, in some cases, discourage evening-or part-time school participation to the everlasting loss of the potential student.

Instruction should be functional to be effective. The more functional, the more "on the ground," the more specific the instruction, the more apt is the student to apply it in his own life.

In Summary

1. Farm mechanics teaching should be functional.
2. The teacher of vocational agriculture is responsible for farm mechanics training for three groups of students: all-day, part-time, and evening.
3. The three groups vary in farming status and abilities.
4. Emphasis on objectives must vary according to the type of student.
5. Emphasis on different types of teaching procedures must vary according to the type of student.
6. Course content must vary according to the type of student.
7. The supervised farm practice program should make use of real-life situations involving farm-shop teaching.

How Much Drawing?

CARL G. HOWARD, Teacher Education,
State College, New Mexico

C. G. Howard

WHAT part of the time allotted to instruction in farm mechanics should be spent in planning jobs to be done? Should a high-school graduate in vocational agriculture and farm mechanics be expected to take a blueprint of a poultry house and be able to construct the house according to specifications? Should boys in farm mechanics be taught to make freehand sketches, isometric, orthographic, or oblique projections? Should a drawing of every construction job be required of each student? Should boys be expected to make complete material bills for each job, determine material costs, and submit them to the shop teacher before being allowed to commence work on the job? With contract teaching, what portion of the contract should provide for the sketching needed?

These are only a few of the questions which arise whenever an effort is made to determine the activities which should be included in a farm mechanics course. It is rather doubtful if the same answer could be given for any two situations.

Mechanization of agriculture, improved roads, new developments in machinery and machine practices, gas and electric are welding, mail-order houses, and a variety of other factors have an effect on farm-mechanics courses of study. Electrical codes, plumbing codes, and insurance companies are reducing the number of things which the farm youth may need to do for himself. What will the tendency be in the future?

To Make or to Buy—Which?

An agricultural engineer of the writer's acquaintance maintains that in the farm shop nothing should be made which can be bought as cheaply as it can be made at home. His test of the worth of any shop job is its price in a mail-order catalog. Another farm mechanics expert maintains that to do the job is not important. The important thing from his point of view is to appreciate the job which is done properly. When the controversy over skill versus knowledge has gone on for some time, when the mail-order catalog has been used in proof, and when everything is settled to the experts' satisfaction, there is still an unanswered question: What should the average western farmer do who lives a long way from town? He seldom has money for mail ordering; he has no use for an appreciation of a job because he can't choose the best, but must get along on what he can patch up; he has a lot of usable material in the shed or barn; and his time is worth nothing to him in money.

This western farmer with little money, much time, and plenty of material with which to work seems to be the farmer one should think about in developing a course of study in farm mechanics. Certainly a turning lathe to make handles and taboret legs has no place on the average western farm. Certainly the farmer must buy his handles. But how about the sheep feeder, the brooder house, the stock trailer, and other similar applicances? Should these be bought or appreciated? They need to be made on the farm.

Making Drawings vs. Reading Blueprints

How much drawing is needed to do a satisfactory job of getting additional material, selecting usable old material, estimating cost, and determining construction details? What roof pitch should be used? Where should windows be placed?

Extension or experiment station bulletins or circulars provide building plans. How much drawing is needed to be able to read them intelligently? Enough is needed to enable an individual to place any simple construction problem in front of him in its completed stage and, from the life-sized object, complete a drawing or sketch from which some stranger could re-create the same object or problem. How much time this will take depends on the ability of the teacher; the equipment in the school; the relative ability, age, needs, and desires of the students; and the money available with which to re-create drawn jobs.

What should the shop teacher do about drawing? Most textbook authors express or imply adherence to the mechanical procedure, which provides that each student must sketch and make materials bill and plan for each job before he is allowed to start work on it. To do these things would require about 25 percent of the total shop time in the first year and at least 10 percent of the shop time in later years to be given to drawing.

The sum and substance of the whole thing seems to hinge on the organization with which the individual teacher plans to work. Each teacher must "write his own ticket," decide on his plan, and then put it into operation.

A Point System

One such plan which has worked very well with a number of teachers makes use of the point system of grading and the student's shop card. The teacher arbitrarily sets up the number of points he will require in drawing, figuring materials bills, and making plans. Each boy is required to complete work sufficient to earn this number of points. A shop card is required for each job a boy does during the year. If no drawing is needed, that part of the back of the sheet is left vacant. If no plan is needed, that is left off. However, the requirement is that every boy must agree with the teacher as to the contractual number of points the satisfactorily completed job is to be worth before any construction or repair work is actually started. A separate shop card is required for every job. The boy and teacher know how much the job is to cost and how much it is to be worth (estimated) in points before the boy begins the job. When satisfactorily completed, the boy is allowed that number of points and starts on a new shop card for his next job. Required and elective jobs are handled in the same way.

A file for each boy's shop cards and a wall chart on which results are entered completes the organization. There may be many better organization schemes, but a lot of men are using this procedure in a very satisfactory manner.

Briefly, the requisites of the organization are: teaching the boys to make drawings, materials bills, and plans; approving drawings, materials bills, and plans for each job to be undertaken before work starts; contracting numbers of points each job is to be worth by teacher and boy; actually constructing or repairing the job; and allowing the full number of points upon satisfactory completion of the job. This completes a cycle of work which demands planned effort before credit can be earned.

Grand Marais School Forest

KEITH CHENEY,
Superintendent and Teacher of Agriculture,
Grand Marais, Michigan

THE Grand Marais School Forest is now one of the largest school forest plots in the State of Michigan, having increased its acreage from 80 to 600 acres in the past five years. A most active and varied program is being carried on in connection with it. This spring a total of 80,000 seedlings and transplants of red, white, and jack pine will have been set out in the forest by boys of the local Future Farmers of America chapter, other high-school students, and youths working under N. Y. A. The trees are furnished by the Michigan State Conservation Department, with the local district paying the expense of transportation.

Purposes and Projects

The purpose of maintaining a school forest is, first, to provide practical experience in problems of forestry and conservation for students; second, to provide profitable work projects for youth on N. Y. A.; third, to establish an economic resource for the school; and fourth, to provide a center for recreational activities.

The projects in connection with the forest consist of the construction of the forest laboratory, trimming, stumping, thinning, scalping, transplanting, surveying boundaries, constructing boundary markers, and making of fire lines, ski trails, ski slides, and rustic furniture. These projects have provided employment under C. W. A. and F. E. R. A., 2,400 man hours, and for a group of N. Y. A. boys ranging in number from 6 to 18 during the years from 1935 to 1940.

The forest laboratory is a building 28 feet by 40 feet, formerly used for school purposes in the village of Grand Marais. The building was torn down, and reconstructed in 1934 by C. W. A. labor, on the banks of the Sucker River in the school forest. It is used for housing workers, for storage of tools and

(Continued on page 78)

Selecting a Farm-Mechanics Textbook

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Instructor in Agricultural Engineering, University of Minnesota

THE teacher of farm mechanics has a wide range of enterprises from which to select content for his courses. He will want to build his course of study to include those enterprises which best fit the needs and interests of his own students. The lack of adequate space, equipment, funds, and time available, as well as other factors may set some arbitrary limitations; but they should be secondary to the needs and interests of the pupils. Under no circumstances should the content of any one textbook be the principal basis for including certain enterprises and omitting others from the course of study in farm mechanics.

After the instructional units or enterprises to be taught have been determined, the teacher may wish to examine the various books on farm mechanics to see what each has to contribute to the subject matter to be taught. In addition to subject matter content, the books can also be evaluated on such factors as price; date of publication; number of illustrations; method of presenting subject matter; accuracy and completeness of information; and mechanical features such as size, preface, table of contents, appendix, and index.

If no one book is available which adequately treats the enterprises to be taught, it may be advisable to select the one which most nearly fits the needs, and to obtain one or more additional books to be used as references.

To aid teachers in selecting farm mechanics books, either as textbooks or as references, the writer has prepared an analysis of ten books in the field. Only those things which could be evaluated objectively have been included.

A COMPARATIVE ANALYSIS OF TEN FARM-MECHANICS BOOKS

	Books Analyzed									
	1	2	3	4	5	6	7	8	9	10
Year published	1933	1923	1924	1935	1939	1928	1939	1938	1930	1940
List price	3.00	3.75	2.50	2.00	2.50	2.50	2.75	3.00	3.00	2.48
Total pages	357	382	454	408	558	385	315	273	269	422
Page size (approximate)	6x8¼	6x9	5¼x8	6x9¼	6x9	6x8½	6x9	6x9	5¼x8	6x9
Total figures	366	285	470	594	353	258	360	273	340	464
References listed	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
Questions asked	Yes	No	No	Yes	Yes	No	Yes	No	Yes	Yes
Drawings of projects	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Teaching suggestions	.....	11	.....	6	27	.....	.....	.....	34	53
Preface*	2	2	5	4	3	6	2	4	2	3
Appendix	.....	4	.....	7	8	5	.....	.....	9	.....
Table of contents	6	1	7	1	2	1	3	3	1	1
Index	11	8	12	14	4	.....	7	9	3	6
The home farm shop	6	.....	.....	15	1	.....	.....	8	.....	20
Babbitting	.....	.....	.....	1	2	6	.....	11	4	.....
Belts and pulleys	7	5	50	2	21	5	6	24	4	3
Drawing	10	9	.....	5	8	.....	.....	.....	6	.....
Fencing	.....	1	.....	3	1	5	.....	.....	.....	.....
Fitting tool handles	.....	.....	.....	1	15	2	.....	.....	.....	16
Forging	33	3	.....	5	19	25	43	17	19	34
Glazing	3	.....	.....	1	3	4	2	2	4	3
Harness repairing	11	13	47	5	16	12	13	16	5	29
Masonry, concrete, tile, brick	18	23	59	18	35	22	18	25	31	.....
Metalworking, (cold)	4	4	.....	5	3	9	39	21	11	28
Painting	10	5	16	2	17	11	6	7	.....	13
Pipe fitting	5	5	7	1	6	8	10	18	4	.....
Ropework	26	11	65	9	29	18	27	31	8	36
Saw sharpening	5	10	.....	3	5	7	14	5	10	33
Soldering and sheet metal	6	2	29	2	17	11	19	22	5	10
Team hitches	.....	.....	.....	3	8	.....	.....	.....	.....	.....
Tool sharpening	3	3	.....	3	9	7	30	8	4	45
Woodworking	151	233	.....	92	64	.....	70	20	44	66
Farm automotives, gas engines, tractors	24	.....	.....	8	35	38	.....	4	12	.....
Farm buildings, carpentry	3	25	.....	58	10	22	7	.....	34	14
Farm heating	.....	.....	.....	1	11	21	.....	.....	.....	.....
Farm machinery	.....	.....	.....	28	48	44	.....	.....	31	.....
Land reclamation	.....	.....	83	12	9	.....	.....	.....	.....	.....
Rural electrification, farm lighting	.....	.....	.....	7	35	12	.....	16	.....	.....
Sewage disposal	.....	.....	17	3	17	10	.....	.....	.....	.....
Water supply, plumbing	17	.....	68	10	25	6	.....	3	.....	.....
Miscellaneous	2	4	.....	71	1	22	.....	.....	.....	6
Total enterprises treated per book#	17	15	10	26	26	23	14	16	17	13

1. Agricultural Mechanics, Smith, R. H. (Lippincott)
2. Construction and Repair Work for the Farm, Struck, F. T. (Houghton-Mifflin)
3. Farm Engineering, Vol. 1, Farm Mechanics, Robb & Behrends (Wiley)
4. Farm Enterprise Mechanics, Davis and Others (Lippincott)
5. Farm Mechanics Text & Handbook, Cook, Scranton, McColly (Interstate)
6. Farm Mechanics, Field, Olsen, and Nylin (Appleton-Century)
7. Farm Shop Practice, Jones, Mack M. (McGraw-Hill)
8. Mechanical Training, Boss, Dent, and White (Bruce), St. Paul
9. Principles of Farm Mechanics, Sharp and Sharp (Wiley)
10. The Farmers Shop Book, Roehl, L. M. (Bruce), Milwaukee

*The numbers in the columns refer to the number of pages devoted to the enterprise.
#The enterprises are not always listed under section headings, but may be found in combination with related enterprises. Because of the varied methods of presenting the enterprises, the tabulations are only approximately correct.

Future Farmers of America

L. R. HUMPHERYS

Future Farmers of America as Seen on a Tour of the Nation

E. R. HOSKINS, Teacher Education,
Ithaca, New York

SINCE I have had opportunities in recent months for incidental observations of certain Future Farmers' activities in many states, I would like to mention a few interesting features observed in various sections of our country.

E. R. Hoskins

Let us first recognize the Future Farmer movement as the greatest single innovation in the field of vocational agriculture to be launched in "the twenties." This program has made the teaching of vocational agriculture dynamic and student-centered in contrast to the older teacher-centered programs so characteristic of our work during the first decade after the passage of the Vocational Education Act of 1917. In fact, the activity program of F. F. A. is so generally recognized as an integral part of a program of vocational education in agriculture that it is no longer necessary to present arguments in its favor. The teacher of agriculture who does not have an active F. F. A. chapter should be the exception, rather than the rule.

In confining my thoughts to a few achievements in the several states, I would first call your attention to certain impressions that I gained in Utah, which I entered after leaving Colorado, where I had observed some very good work. It seemed remarkable to me that a state like Utah, with its "great open spaces" and great distances between towns, could organize and train a band of 110 members for the National Convention with representatives from every department of vocational agriculture in the state. This, in my judgment, represented real co-operative effort.

"Big Things" in California

Tho we smile at the big stories from California, it is true that big things, like big trees, may be actually seen on the coast; and I assure you that Future Farmer achievements were among the greatest of activities that I had occasion to observe in '39.

I had an opportunity to visit the largest and most complete layout of rooms for vocational agriculture in the United States. This great department is located at Salinas, the center of the lettuce industry. The school system at Salinas provides for junior-college work in addition to secondary school training. Instruction in agriculture is often given on the junior-college level where well-organized high-school departments are located in centers for California junior colleges. The two institutions at Salinas are entirely separate and employ different instructors in agriculture. Mr. Warren E. Crabtree has been responsible for planning and organizing the building for vocational agriculture. In addition to the spacious shops, classrooms, laboratories, store rooms, and locker rooms, the Future Farmers have their own chapter room and separate office for their officers. In fact, nearly every department of vocational agriculture (that I visited in California) has provided a special room or desk and file space for chapter officers. This same recognition of Future Farmers is given at the regional meetings for teachers. Chapter delegates attend these meetings and rooms are set aside and marked as Future Farmers' headquarters for the transaction of regional business or the planning of regional activities.

I wish the reader to visualize also the largest department of vocational agriculture in the United States in relation to enrollments and number of employed teachers. This great department is located at Bakersfield, the center of the far-famed Kern County. Five hundred fifty boys are enrolled and a total of 14 teachers of agriculture are employed in the several branches of this school system. The large classes and the many teachers permit of a rather high degree of specialization which characterizes California agriculture. For example, Mr. Knight, the instructor in dairy cattle, supervises and develops entire dairy herds on boys' home farms; and Mr. Emerick, instructor in beef cattle, imports carlots of baby beef from Texas to distribute among the vocational boys for supervised practice. Such large scale undertakings call for the extension of credit and many boys are financed to the extent of $400. Some exceptional or advanced students are aided to a much greater extent in obtaining credit for establishment in farming.

Achievement Events

The outcomes of some of these project undertakings are far-reaching. The Bakersfield vocational program in agriculture has the strong support of the local chamber of commerce which has been preparing (thru the efforts of its enterprising secretary-manager, Gay Hoffman) for the greatest livestock show west of Denver this fall. An outstanding show was held at the Golden Gate International Exposition on Treasure Island in 1939 where the agriculture of California was given the recognition that a group of great industries should have.

Tho there are between 75 and 100 major or highly specialized agricultural enterprises in the state of California, the economic aspects of agriculture are not the only features of the large expositions in which Future Farmers participate. Colorful rodeos are held at centers like Bakersfield and Los Angeles and the history of the "far west" is preserved in exhibits and in the pageants which are staged to re-enact the life of frontier days. The outstanding illustration of this effort to preserve the "old spirit" was the "Cavalcade of the Golden West," shown on Treasure Island. Tho the "49-ers" are not forgotten, the "29-ers" and the "39-ers" seemed to be foremost in the thoughts of the leaders and friends of vocational agriculture with whom I talked during my visit to the coast.

Space does not permit my dwelling upon the many fine activities of Future Farmers in the several states where I had opportunities for observation. For example, Texas has an outstanding organization which furnishes many students to swell the ranks of the rapidly growing institution known as "Texas A & M." Both state and national spirit are very much in evidence among these Texans and the former vocational students do their part to foster the spirit.

Co-operation in Louisiana

Next, I would like to describe briefly one of the best F. F. A. banquets that I have ever attended. This banquet was held near Louisiana State University at Gonzales. It might be compared with a county banquet in the north, but in Old French Louisiana (or in the Evangeline country) counties are known as parishes. This banquet was held under the direction of the Ascension Parish Federation of the Louisiana Association. Four high-school departments of vocational agriculture co-operated in making the banquet a great success. It was estimated that about 600 fathers and sons attended, tho some of the federated banquets have many more in attendance. It seemed that nearly all of the influential people of the parish were there. The county extension agent barbecued the beef. The priests, the ministers, the state superintendent of education, the state supervisor of agriculture, the dean of the College of Agriculture and the director of the School of Vocational Education of Louisiana State University were all in attendance and active in making the banquet a success. I was greatly impressed by the support given to this Future Farmer activity and by the statement of one father who said: "So long as we can have unity and co-operation like this in the deep South, we are not concerned about the many 'isms'—for we have Americanism."

Premier in Georgia

Again, in Georgia, I was impressed by the premier showing of Dean Paul Hand." Many of my readers will recognize that this production is based upon his book, bearing the same title. I believe that the production, which is most instructive and interesting, will have a tremendous influence upon the development of agriculture in the South. Certainly it has the support of Georgia's leaders in vocational agriculture. The entire cast of characters and the producers were introduced by Dean Paul Chapman after the showing in the theater. Dean Chapman was hailed as Athens' "man of the hour." The producer compared the "Green Hand" with "Gone With the Wind," which was showing in Atlanta at the same time, by making statements similar to these: " 'Gone With the Wind' shows the *Old South*, but the 'Green Hand' shows the *New South*."

It is significant that the hero of the "Green Hand," Fred, was a boy developed thru vocational agriculture in Georgia and is now enrolled as a senior in the Georgia State College of Agriculture at Athens.

F. F. A. Origins in Virginia

After leaving Georgia, I passed thru "Old Virginia," which reminded me of the outstanding role played by the leaders of this state in giving us a ritual for our national organization. Our national name bears its relationship to the organization known as the "First Families of Virginia" and the old homes of Washington and Jefferson are reminders of the prominent place that these two great statesmen have in our ritual.

Before reaching home, I stopped at Harrisburg, Pa., to visit Supervisor Fetterolf at the State Department of Education. I was impressed by the beautiful paintings of rural scenes that he gives as awards for achievements in Future Farmer Activities in Pennsylvania. Mr. Fetterolf is convinced that these paintings have played their part in creating greater interest in and appreciation of rural life, rural activities, and the great out-of-doors. When I observed how carefully some of the paintings were arranged in the department of vocational agriculture at Troy, Pa., I was impressed by the influence that this effort to introduce culture into the lives of farm boys might have in the future.

Forces at Work in the U. S.

After returning to my duties at Cornell, I have reflected upon the many forces at work in our country to improve both the economic and the social status of rural youth. I believe that the members of this great organization can look ahead with courage.

1. The states are providing greater facilities and resources for the training of farm boys.
2. Experience in the transaction of business and aid for becoming established in farming are now recognized as essential for effective vocational education in agriculture.
3. Wholesome recreation and amusement are parts of the training and follow-up programs of rural youth.
4. A genuine spirit of Americanism is fostered by this organization and larger co-operative efforts are being undertaken each year.

and the out-of-doors is very much in evidence as this mode of life becomes dignified thru the recognition given and the leadership furnished by influential men.

I wish to commend our farm youth for helping us as educators to do what we have talked and written about doing for many years. They, as an organized group, have changed our old teacher-centered program by supplementing it with an activity program which really functions in relation to some of our educational aims—which are all being realized increasingly as our programs for vocational education in agriculture are being vitalized thru the work of this organization.

Thirteenth National Convention

Future Farmers of America

November 9 to 16, 1940

The tentative program released by W. A. Ross, National Executive Secretary of the F. F. A., for the annual F. F. A. convention and national contests for students of vocational agriculture reveals a wide variety of activities for all who will attend. Following several days of preliminary meetings for the National Board of Trustees, the judging of exhibits of students of vocational agriculture, and other activities, the convention will get under way on Monday morning, November 11, at 9:00 a. m. At the same time judging teams from the various states will begin competition for national honors. The official F. F. A. band this year will be from Minnesota. Radio broadcasts of the convention will be carried over N. B. C. at 11:30 Monday, Tuesday, and Wednesday. A special F. F. A. program will be presented on Tuesday evening, with the annual Vocational Agriculture banquet scheduled for Wednesday evening.

F. F. A. "Parlor" Sheep Judges

CARL G. HOWARD, Teacher Education,
State College, New Mexico

TO THE Rotary Club of Las Cruces, New Mexico, goes the distinction of playing host to a most unique program embracing the judging of a class of fat sheep in the Rotary Dining Room. So far as I know this is the first class of livestock to be judged by anyone in a dining-room.

Realizing that it would soon be my turn to put on a Rotary program I noted an interest on the part of several Rotary members in the process and procedures in judging livestock when a group of 4-H Club boys were guests of the club and were describing their activities.

The germ of the idea developed to the point where I decided to put on an entirely unrehearsed portion of a livestock judging contest for the membership of the club.

The animal husbandry department of New Mexico State College was happy to provide some of the sheep of which they are justly proud for the event. Professor Neale, in charge of sheep husbandry, consented to hear reasons and otherwise to take part in the "judging demonstration."

The Las Cruces department of vocational agriculture was invited to demonstrate their ability as sheep judges for the Rotarians. Cecil Hellbush is the coach and F. F. A. advisor of these boys.

The cafe owner put down a piece of canvas in his banquet room upon which to let the sheep run. Two former teachers of vocational agriculture, including myself, a former county agent, and the present county agent, all Rotarians, acted as holders for the stock.

The judging participants were introduced and the connection existing between a teacher-trainer and an F. F. A. judging team was explained briefly. Mr. Hellbush explained the mechanics and values of livestock judging while the boys placed the class. Professor Neale heard the boys give oral reasons for their placings and complimented them on their ability to give honest reasons. He intimated that if all businessmen would be as honest in selling their machines to farmers we would be better off, in that good points, weak points, and the reason for buying one machine rather than another would result in a fairer deal for the farmers.

Inspiration To Go Forward

AS I sat in the magnificent arena of the Kansas City Municipal auditorium and listened to the opening ceremony of the 12th Annual National Convention of the Future Farmers of America, I felt as tho I was hearing this for the first time. I realized more deeply than ever before the true meaning and significance of our ritual. When the reporter said, "A national organization that reaches from Washington to Puerto Rico, and from Maine to Hawaii," I looked around me; there were Future Farmers from every part of our great country, united in a common cause and for the same wonderful purpose. It made me realize more than ever before, that we were indeed a national organization and how far-reaching and widespread our influence is. I was certain, as never before, that the principles of the Future Farmers of America were spreading to every man, woman, and child in the United States, and I was proud and humble at being a small cog in such a great machine.

When the vice-president said, "We shall be led out of the darkness of selfishness and into the glorious sunlight of brotherhood and co-operation," I felt a lump in my throat. I looked into the bright, eager faces of the Future Farmers around me, and I could see that sunlight lighting the way out of the dark corners of depression and despair. I knew that ours was a glorious heritage and a wonderful opportunity, and in my heart I was certain that with groups such as were present at this convention, on the march in every corner of America, the destiny of our country was safe in their hands.

This knowledge and feeling has stayed with me and I only hope I will be able to impart to the members of my chapter some of the inspiration and eagerness to drive forward, that were the priceless gifts I brought back with me from Kansas City.—H. Glenn Segars, Evans High School—The (Georgia) *GAFFA*, Dec. 1939.

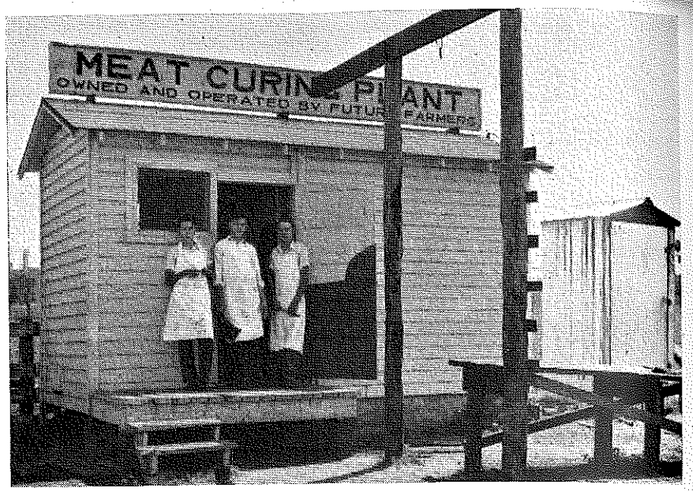
Teaching Meat Curing Thru a Group Project

E. W. GARRIS, Teacher Education,
Gainesville, Florida

TEN years ago Seminole County, Sanford, Florida, had few hogs on the farms and no curing plant was available. The teacher in the department of vocational agriculture at Sanford believed that the celery farmers of the county should produce meat for home consumption. It was useless to advocate the production of hogs for cured meats because it was expensive to carry the meat to the nearest curing plant, and it was too great a risk to attempt to cure the meat on the farm.

Due to the sudden variations in temperature, farmers in the lower South often lose pork and pork products during the curing process. In Florida many of the power companies and ice plants have established meat curing departments. As a rule, the charges are from 1½ to 2c per pound for curing and smoking.

The Seminole chapter of Future Farmers of America, Mr. Alex R. Johnson adviser, decided to construct a small curing plant on the school-land laboratory. Temperature in the building is controlled during the curing process by means of ice. The boys have been taught how to butcher, cure, and smoke meats. The following table indicates the pounds of meat cured since 1932:



"Each boy taking vocational agriculture has acquired all skills connected with killing hogs and with cutting, curing, and smoking meats"

Year	Pounds
1932–33	7,971
1933–34	5,435
1934–35	4,177
1935–36	5,703
1936–37	15,491
1937–38	17,000
1938–39	16,111
1939–40	*15,000

Hogs produced on the land laboratory are butchered by the boys. Often they are asked to butcher hogs for farmers. In this way, each boy taking vocational agriculture since 1932 has acquired all skills connected with killing hogs and with cutting, curing, and smoking meats.

The follow-up records of the department of vocational agriculture at Sanford indicate that six former students are employed in the meat industry, one of whom is foreman of a large plant.

*To first of March

Advisory Council

(Continued from page 69)

Activities during the summer months include one or two follow-up meetings and one evening-school tour. A follow-up meeting which received considerable interest during the past summer was on plow adjustment conducted on the farms of two of the members. Plans for the present summer include two follow-up meetings: one on weed control, and the other on binder repair and adjustment. Evening-school tours add a great deal of interest to the work.

As part of the follow-up work in last year's evening school on farm management, 35 farmers are keeping farm records. Special evening meetings were conducted at the beginning of the year to assist the members in taking inventory. Additional meetings will be held thruout the year to assist the members with keeping the records.

During my experience in evening-school work, I have found the problem method of teaching very successful in holding the interest of adults. Following is a problem which created a great deal of interest and discussion:

Mr. Johnson lives on a 160-acre farm. He raises an average of 60 acres of corn per year, making an average of 50 bushels per acre. He has a Farmall tractor and outside elevator. In the past Mr. Johnson has always hired his corn picked by hand and he wonders if it would not be cheaper for him to buy a corn picker. Should Mr. Johnson buy a corn picker or continue to hire his corn picked by hand? Which would be the cheaper, to buy a picker or to hire a custom picker for $1.75 per acre?

Use of problems of this type stimulates an excellent discussion and thru the discussion the viewpoints of many men are presented.

During the past year a film strip was shown during the opening 15 minutes of each meeting. An attempt is made to secure a film pertaining to the subject of the lesson. We found this very satisfactory. It encouraged the men to be on time, and furnished entertainment to those present before the main discussion started.

Experience in evening-school work indicates that lesson material should not be presented in a pedantic manner. The teacher must have in mind the many years of practical experience which many of the adult group have behind them. Handling an adult group often calls for considerable diplomacy on the part of the teacher.

School Forest

(Continued from page 75)

equipment, and as an overnight camp by various clubs, classes, and similar organizations connected with the school. The camp has also been used by F. F. A. chapters from southern Michigan. The building is partially furnished with rustic chairs, benches, and tables constructed by N. Y. A. workers. It has a good driven well, with pump in the cabin, and heating and cooking stoves.

The school forest land has been obtained thru grants by the Michigan State Department of Conservation, free except for the cost of title transfer paid by the school thru the co-operation of the Cleveland Cliff Iron Company and a subsidiary, Superior Realty Company, and thru the personal interest of John Bush, Vice-President of the Superior Realty Company.

Over $400 worth of timber from the property has been sold or used by the school for general shop and farm shop class construction. All of the rough timber used by the County Road Commission in the construction of bridges over Grand Marais Creek and Sucker River was supplied from the forest. A total of 6,000 board feet of lumber has been supplied the school from hemlock, red, white, and jack pine culled from forest property. The only timber cut has been that which was injured by fire which burned over the area many years ago. One truck load of fence posts has been marketed from the school forest.

The forest affords good cover for wild life including beaver, coyotes, bear, deer, and fox, while the Grand Marais Creek and Sucker River which cut thru the forest are among the noted trout streams of the upper peninsula.

The property is located on a county road with the nearest forties about two and one half miles east of the school building.

The livability of the transplanted trees for the past two years has averaged 65 percent while some areas showed 90 percent. Extension Forester Ira W. Bull, of Michigan State College, has visited the school forestry plot, assisting in forestry problems during the past two years. Movies of planting activities in May 1939 have been shown in connection with other scenes depicting school activities.

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