America extend to you a cordial invitation to attend their Father and Son Conference. This conference will be held from February 22 to March 4, in the farm shop at Greeley High School. It is the first of its kind in the state and we depend on you dads to help us make it worth while.

The purpose of the conference is two-fold: First, we shall discuss problems which you consider of the most importance to you and hope to come to a logical conclusion or course of action; second, we shall discuss ways and means of improving the agriculture department to the mutual advantage of your boy and the department. If you are interested as a father and a taxpayer in the kind of training your boy receives in the public schools of Greeley, I am sure nothing can keep you away from this conference.

The meetings will start promptly at 7:30 and will be held every night of the week except Saturday. There will be 10 meetings in all. You have already been invited by your boy to attend as many meetings as possible, and we are more than pleased by the fine response you have made.

Many of you attended our Father and Son Party at the beginning of the year. While this conference is of a much more serious nature, we hope to include an entertainment feature once or twice a week which you should find worth a trip to town.

We are asking for your help in this conference. Your farming experience and your advice as a father are essential to the success of these meetings.

Yours very truly,

Secretary, F. F. A.

Adviser.

Any teacher of agriculture who may be interested in a father and son conference and wishes to find out just how the conference was conducted, and what it has done, should write to H. D. Eldridge, teacher of vocational agriculture at Greeley, who will be pleased to answer all such inquiries.

A Part-Time Course

(Continued from page 199)

November 17, making a total of 13 meetings held thus far with an average attendance of 28. I have definite plans made for 7 more meetings, making a total of 20 meetings at least.

Some of the topics for discussion at the several meetings were: factors governing profitable swine management; swine feeding; caring for the sow and litter; swine breeding; housing and equipment for hogs; parasites and diseases of hogs.

At one meeting I had six reels of moving pictures stressing the value of sanitation as a means toward economic swine production. At another meeting I had a veterinarian post a diseased hog and discuss the diseases, their causes, and remedies.

Thus far, I have 10 fellows who have started a definite program of supervised practice such as buying purebred sires, starting the McLean sanitation system, keeping more accurate and complete records on their swine enterprises, increasing the number of sows on

Promoting a New Agriculture Department

(Continued from page 198)

of the regular Vo-Ag class and active participation by the rural boys.

The first lesson was "Selecting and Judging Seed Corn and Wheat" which ended by the boys judging samples of corn and wheat. "Farm Shop Work" was the second lesson. Demonstration by members of the regular class of the different types of work such as woodwork, sharpening saws, planes, and bits. Soldering and rope work were also a part of this lesson. Putting theory into practice, the boys showed their skill by making rope halters. For the third lesson "Dairy Management and Testing the Herd for Butterfat Production" was considered. The Babcock test was demonstrated by testing samples brought in by the boys. At the last meeting "Livestock Judging" was taken up and all participated in the judging of a class of livestock.

I think the plan worked out fairly well as we had an average attendance of 83 at the four meetings and I came in contact with 120 different boys. The weather and the roads were the worst we had all winter but in spite of that fact most of them drove over fifteen miles to get to these meetings.

As a result of these meetings 27 of these boys have signed up and are conducting pre-vocational projects. I also plan on visiting all of the 120 boys sometime before the opening of school this fall.

As a kind of a follow-up scheme the local chapter of the F. F. A. gave a picnic June 28 and invited all these rural boys and their families. About three hundred and fifty rural people came to this picnic where they learned more about vocational agriculture and enjoyed the afternoon together. A sports program consisting of horseshoe pitching, races, and kitten ball games provided entertainment. A five-page mimeographed bulletin explaining the Vo-Ag work as it is given in the local high school was passed out to all present. These bulletins were also given to the eighth grade graduates at the county commencement held here in June.

Many rural people have asked if I would not conduct a similar series of meetings again this year. Therefore I have decided to do so with the following changes: (1) Hold meetings in the fall after the fall work is completed; (2) hold meetings on Saturday afternoons because it takes too much time off the regular classes to hold them on Fridays.

Activities of the Maryland Association of F. F. A.

THE Vocational Day Program, held at the University of Maryland, April 30, included public speaking and poultry judging contests; luncheon program by the Maryland Association of F. F. A., including an illustrated lecture on the 1931 National Congress of F. F. A., held in Kansas City, by W. A. Ross, executive secretary of the National Organization of F. F. A., which now consists of 47 state chapters with more than 60,000 members; music by the awarding of prizes by Dr. Patterson, dean of agriculture at the University of Maryland; and the transaction of business presented by Dr. J. D. Blackwell, adviser of the Maryland Association.

An undertaking new this year to the Maryland Association of F. F. A. will be the holding of three district F. F. A. officers' training camps. Tentative plans have been made for the holding of a four-day camp at or near Mountain Lake Park, July 14–17, closing with a special F. F. A. program in connection with the Mountain Lake Institute on Sunday, July 17. The secretary of the Maryland Agricultural Teachers Association will be in charge. A second camp will be held at The Rocks, in Harford County, August 15–20. The third camp will perhaps be located on the Eastern Shore.

Practically all local chapters have entered the state chapter contest. An F. F. A. banner will be awarded to the chapter doing the most outstanding work during the year. This chapter will be invited to broadcast the results of the year's work, early in the fall.

Alpha Tau Alpha

(Continued from page 198)

found a rich field of service. Not only have trainees in vocational agriculture, but teachers in the field have been brought together in a fine professional spirit of enthusiasm and loyalty for their work. This is surely a part of the work of teacher-training institutions—to foster the spirit of enthusiasm and love for teaching, and Alpha Tau Alpha does contribute to this end.

Communications of inquiry, directed either to the national president or secretary will receive prompt and courteous attention.

Future Farmers at Fairs

KENNETH H. MARTIN,
Instructor in Agriculture,
Albion High School, Albion, New York

FUTURE Farmer chapters, I believe, could be better represented at county fairs if fair officials were made more familiar with our work. Fair officers are usually broad-minded and, when tactfully approached by a committee of agriculture teachers, are willing to do any reasonable thing to enrich the Future Farmer program. They know that a group of boys taking part in a well-planned program on the fair grounds means that parents are interested and will be there.

The Albion agriculture department is the only department in the county, but the fair secretary says, "I am willing to go the limit for the farm youth of the county." Our Future Farmer program at the fair this year will include a wide exhibit of crop products, a poultry exhibit, a miscellaneous exhibit of rope work, saw filing, soldering, and carpentry work, a Future Farmer booth, a livestock judging contest, and a plant-disease and insect-injury identification contest. I believe this is the only county in our state offering a plant-disease and insect-injury identification contest. An exhibit will be made up of 20 disease or insect-injury specimens of crops grown in the county. The contest will consist

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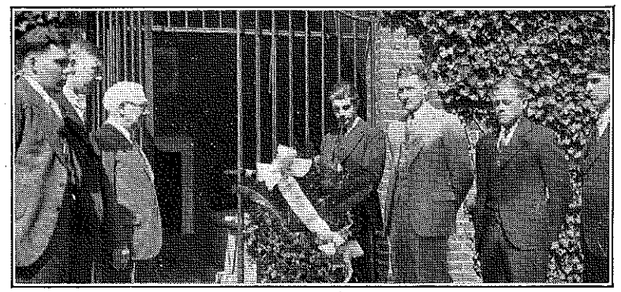
Agricultural Education



National Officers of the Future Farmers of America placing a wreath at the tomb of George Washington, April 7, 1932.

Washington was one of the first and most illustrious Future Farmers. As such it was particularly appropriate that the national officers place a wreath at his tomb. Every student of agriculture should glorify the memory of this great American who never lost his love and faith in agriculture.

"If you want to hit a bird on the wing you must have all your will in a focus—every achievement is a bird on the wing"—OLIVER WENDELL HOLMES

EDITORIAL COMMENT

AGRICULTURAL EDUCATION

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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VOLUME V

THIS issue of *Agricultural Education* is Volume V, Number 1. Four volumes have been printed each month and mailed to addresses all over the United States and foreign countries. These four volumes, we hope, have contributed to the development of the field of agricultural education. If the magazine does not render a service to vocational education in agriculture, there is no excuse for its existence.

We hope that the readers have received inspiration, helpful suggestions, and valuable information. We appreciate the moral support, encouragement, suggestions, constructive criticism, and timely articles, from the many readers.

We trust that you now recognize your responsibility to this magazine—recognize that it is your own paper. Much remains to be accomplished in promoting and developing vocational agriculture. Part of the responsibility is yours. Present your ideas thru the columns of *Agricultural Education,* read the magazine for the ideas of others.—C. H.

SUMMER WORK, THE NEW YEAR AND THE OLD

THE new year for teachers of vocational agriculture begins July 1, the middle of the summer. Summer work occupies a peculiar and important place in vocational teaching. Not only is the success of the preceding school year largely dependent upon the summer work of the vocational teacher, but the success of the succeeding year is largely dependent upon what the teacher does during the summer.

A teacher of vocational agriculture has little difficulty in justifying, in the minds of his patrons and employers, his salary from September to May. Tradition has it that teachers do not teach in the summer. Many of those with whom we work live in the realm of tradition. Vocational teaching with its year-around program represents a digression from the old idea of "school teaching"—a digression from what has been custom. It is up to the men engaged in teaching vocational agriculture, to prove that the summer salary is justified—up to them to make the summer salary justified.

The agriculture teacher is employed on a 12-months basis primarily for the purpose of efficiently directing and supervising the farm practice work of his students. The close of the school term gives the student an opportunity to carry forward his farm practice under more favorable conditions. More of the teaching becomes individual; the problems become more real. With the close of the school term, added responsibility is placed on the shoulders of the agriculture teacher. The teacher has a responsibility in helping the pupil carry out the program of work planned by the pupil; projects and social visits to the boys. The teacher must make the farm practice visits the occasion for definite seasonal instruction and for inspiration and guidance.

Directing and supervising farm practice is not the only job of the teacher during the summer. There is professional improvement, and the teacher must get ready for the school term to open in the fall; courses of study need to be reworked; rooms need to be dressed up; the library needs bringing up to date; prospective students need to be visited; the foundations for evening school and part-time work need to be laid.

At the beginning of the new year one starts on a new leaf, a new chance. Some poet wrote:

He came to my desk with quivering lip.
The lesson was done.
"Have you a new leaf for me, dear teacher
I have spoiled this one!"
I took his leaf, all soiled and blotted,
And gave him a new one, all unspotted,
Then into his tired heart I smiled:
"Do better now, my child!"

I went to the throne, with trembling heart.
The year was done.
"Have you a New Year for me, dear Master
I have spoiled this one!"
He took my year, all soiled and blotted,
And gave me a new one, all unspotted,
Then into my tired heart He smiled:
"Do better now, my child!"

—C. H.

DEVELOPING LEADERSHIP

EVERY one recognizes the need for leadership among farmers, and no one who has observed closely the workings of the organization of Future Farmers of America can fail to see that it is a very effective agency in the training of leaders among young farmers. The valuable experiences they are getting in this organization were unheard of when their fathers were starting out to farm for themselves. I should say that the organization of Future Farmers of America should have for its goal the preparation of the membership to meet its problems with more confidence and solve them more effectively in order that it may render greater service rather than it shall solve its problems with less effort. There will always be problems; they will always be difficult. The more difficult they are, the greater the challenge. Let Future Farmers be prepared to meet the challenge, whatever it is."—C. M. Miller, Secretary of the American Vocational Association.

AIMS VS. OBJECTIVES

THE other day a young man with eight years of experience as a teacher stated that he is "still unable to differentiate between aims and objectives in directing the learning activities of students in vocational agriculture."

The writer has found it helpful to think of "aims" as expressing a broad concept giving the purpose of or the general direction of education. Likewise "objectives" may be thought of as specific goals of achievement to be accomplished. From this point of view, aims may be concerned with the purpose of education in general or with certain forms of education, such as vocational education, or with certain phases within the forms of education. Objectives set up definite goals of achievement as specific guides to the activities of teachers and learners.

To reiterate—aims give us the general direction we are

Professional

What Price Experience?

ARTHUR K. GETMAN, Chief Agricultural Education Bureau, New York

This spring and early summer more than a thousand young men are graduating from our colleges and are entering the field of teaching vocational agriculture. The accompanying article presents three practical suggestions to these young men, which have been gleaned from the comments and criticisms of boards of education, superintendents, and principals. These suggestions are worthy of careful study by the young graduates because they represent the "trial and success" of mature teachers as well as the "trial and error" of those less experienced.

Arthur K. Getman

WE WERE considering candidates for an important position. My friend, the superintendent, was insisting upon "an experienced man." His long experience in employing and supervising teachers prompted a question:

"Why do you insist on an experienced man?" His reply was quick and decisive. "We can't afford to pay such a high price for inexperience. The inexperienced man is long on hope and short on tested ability. I am quite mindful of the fact that all must make a beginning. It exasperates me, however, to see some teachers *grow up* so slowly. What can we do in teacher training and supervision to help the young man gain sound experience with a minimum of costly mistakes?"

The superintendent's question was a professional challenge. Since he asked it, I have spent several months in utilizing every opportunity in considering this problem with superintendents and mature teachers. There have been three specific outcomes, which we shall have space only to consider in barest outline.

First comes the quality of common sense. It is something of a jump from the atmosphere of college days to leadership and responsibility activities in the rural community. Bridging the gap is not always easy. Oftentimes habits quite acceptable on the campus bring censure and criticism in the small town. Here are some of the little things which often prove costly in the young teacher's quest for experience: Smoking, like many other acceptable habits, is all right in its place, but clearly that place is not in or about school nor on field trips with students. Common sense should dictate the right place in which to indulge oneself. Then, there is the matter of fitting into the life of the community as quietly and as serviceably as is consistent with good taste. Four superintendents agreed that the big "I" of the young man fresh from college was a source of real handicap. The desire to give a good account of oneself and to be "a hale fellow well met" must be tempered with an expression of professional balance, very much as a young physician might be expected to conduct himself when seeking to become established in a small community.

The moment one is placed on the public pay roll he subjects himself to close public scrutiny. His services, both within and without the school, are ready subjects of conversation, especially in enter his first teaching position with a view to making the best possible use of his talents. First he must give a creditable account in his immediate teaching field. But, in the smaller communities this is not enough. He should study his own abilities and interests and equip himself to carry his load in social, civic, recreational, and religious activities. It is the writer's observation that the one besetting sin in laying out such a program of service is that the young teacher, in his zeal for popularity, takes on more than he can do well. As in specific vocational activities, measurable results should be sought for. Whoopee is not a substitute for a specific achievement.

Professional growth is the second factor. Thruout the average teacher's preparation the idea of professional study and consistent growth has received careful emphasis. Here, space permits of but one major suggestion, born of the observed errors and failures on the part of young teachers. It seems to be a human tendency to think well of professional growth *in general* and to resist such growth thru the outcomes of specific study and effort. Teaching, of necessity, must be individualistic. Method is merely a way of acting. No two teaching situations are exactly alike. Presently the discerning teacher will discover within himself certain weaknesses which soon grow into handicaps. Right here is the beginning point of the young man's program of professional improvement. Get the difficulty out in the open and plan a systematic attack upon it. The available means of study with extension courses, professional conferences, and summer schools are well known. My plea here is for definitely recognizing specific professional weaknesses and planning a program suited to the strengthening of such weaknesses before they become deep seated. A striking illustration of such a program came to my attention recently in a teacher's weakness in conducting a conference discussion. I was privileged to make suggestions in a systematic attack upon this difficulty. The progress of the teacher in meeting the new demands was almost unbelievable. Another example was found in the experience of a young teacher who was finding it extremely difficult to speak in public. Under the guidance of an able leader and thru the expenditure of extreme effort he is now recognized as one of the ablest men on his feet to be found in the community.

Sympathy with and knowledge of youth constitute our final element. "Mr. A is in a jam with the boys about half of the time," commented the superintendent mentioned at the outset of this impetuous words get the better of him." The experienced teacher has learned the hard lessons of leadership of youth by keeping out of the way of his boys. When pupil activity is encouraged, many pupil mistakes are inevitable. This is especially true in the field of attitudes and ideals. It is perfectly apparent to the trained student of agricultural education that we have made marvelous progress during the last decade in the improvement of pupil abilities in managerial and operative farm jobs. At present we have an imperative challenge to attack with like vigor the problem of improved attitudes and ideals on the part of our vocational pupils. The first requisite of such an approach is a keen sympathy with the interests and problems of young people and an accurate knowledge of their natures and how to change them in desirable ways.

The influence of the teacher is felt in every walk of life. No longer is his work confined to merely inculcating selected bits of knowledge or using devices to keep the boys busy. The true teacher goes far beyond that. He realizes both the opportunity and the challenge of guiding his boys so that they may select and live by right attitudes and high ideals and so that they may build sound character. Such teaching embodies an intimate knowledge of each pupil's special interests, handicaps, home conditions, attitudes of mind, and future ambitions. The teacher is worthy of his profession only when the pupils leave his hands with something of the quality and the deeper values of life which he has set for their example.

Such distilled essence of prophetic insight as has come down to us in Emerson's words, "Remember that what you are speaks so loud that I cannot hear what you say," gives us a new vision of the test of a true teacher. Youth is quick to discern a sham and to ferret out insincerity on the part of its teachers. Indeed, the young teacher must watch his step else he will pay a high price for his experience. In the early years he is on trial. His technical and professional equipment is well cared for in our modern colleges. When he cuts loose from

quite as vital as what he *knows* and what he can *do*.

Longfellow's poem "My Lost Youth" seems very near the truth in our desire to understand youth, as he describes their long long thoughts. As an old man he tells of a long walk over familiar scenes of his boyhood. Stirred by the memories of his youth and by a bit of verse from an old Lapland song, he wrote his poem. Read the first and seventh stanzas here presented:

"Often I think of the beautiful town
That is set by the sea;
Often in thought go up and down
The pleasant streets of the dear old town,
And my youth comes back to me
And a verse of Lapland song
Is haunting my memory still;
A boy's will is the wind's will
And the thoughts of youth are long, long thoughts.

I remember the gleams and glooms that dart
Across the school boy's brain;
The song and the silence in the heart
That in part are prophecies, and in part
Are longings wild and vain.
And the voice of that fitful song
Sings on, and is never still;
A boy's will is the wind's will
And the thoughts of youth are long, long thoughts.

News

Dr. C. R. Wiseman of South Dakota State College has been engaged as visiting professor in the School of Education of the University of Montana at Missoula for the nine weeks summer term. He will teach courses in general education and participate in the Montana Conference on Education, a four-day session held in connection with the Montana summer school each year.

Dr. R. H. Woods of the University of Kentucky goes to Ohio State the first term of the summer session to teach a course in the organization and methods of conducting part-time and evening courses in vocational agriculture. In previous years this course has been handled by Supervisors Fife and Getman and Professors Spanton and Gentry.

The livestock judging team of Santa Rosa will represent California in the national contest at Kansas City next fall, after winning in the state finals at California Polytechnic school, May 14. Live Oak won the poultry judging contest, and Selma High School won in dairy cattle judging. The final contest was held to the three branches of judging as an economy measure.

An Education That Brings Returns

VOCATIONAL agriculture training, in my opinion, is the most worthwhile effort made by our Uncle Samuel in the behalf of agriculture. This statement is made after watching the work of teachers, students, and graduates ever since the system was installed. Vocational agriculture does more than fit farm youth for farm life. It dignifies food production, it develops leadership, it is building up a militant organization which will make the palid co-operation of today's farmers seem even more weak in a few years. These state and national 'Future Farmers of America' organizations are functioning without jealousy and with just enough friendly rivalry between state groups to spice activities. We can expect much from them in the

Functional Education

G. M. WILSON, Boston University

From 1912 to 1921, Dr. Wilson was head of the Department of Agricultural Education at Iowa State College. Since then he has been professor of school administration at Boston University. He is joint author of "The Motivation of School Work, "How to Measure," and other standard books on education. This article is interesting in part because it reflects his views after nine years spent outside the agricultural education field, during which he has had the opportunity to reflect upon the soundness of the work in which he was formerly engaged.

AGRICULTURAL education is one of the fruits of the movement for a functional education in our schools. This movement for many reasons has had to make progress under difficulties. We see clearly that the schools should aid the child in doing better in life what he is going to do anyway. This means definite and specific equipment; it means helping him to think at the time on problems which are presenting themselves. Yet, in some way the idea that the schools are separate and apart from life has come to prevail with most people and, unfortunately, with most teachers, because most teachers are not trained to the professional level.

It is doubtless safe to say that any new departure in education, when first initiated, was functional. When Sturm introduced latin as the core of the curriculum for his first high school in western Europe (1537), it was functional, for the reason that only a small fraction of one percent of the brighter boys were expected to enter such schools, and all of these boys were expected to go to a university where all books were in latin and all lectures were delivered in latin. It is perfectly logical that we find in the early records of William and Mary's College that professors were required to compose latin for the various games. In other words, latin was the language of literature and of the university classroom, and its mastery at that time was as functional as is the mastery of English in America today.

To be sure, while college entrance boards and certain departments of high schools and universities still cling to such a traditional subject as latin (Greek has long since gone), the people, all told, have relegated latin and other languages to secondary place. At the present time, there are more students in commercial courses in the country as a whole than in any other group of courses. In Massachusetts the proportion of high school students in commercial and vocational courses exceeds 50 percent of the total.

So in universities, progress has been made in spite of the conservation of the liberal arts college (which, by the way, has made tremendous progress). In a university, if the arts college refuses to admit a new line of work, such as business, promptly a new college is established, a school of business administration, and directly it has more students than the school of liberal arts itself. And so, in spite of conservatism, science, and the various applications of science, such as agriculture, home economics, engineering, education, etc., have entered our universities. In fact, they have come to dominate our modern universities.

Progress has been made. The functional viewpoint is generally accepted in spite of the traditional forces which in many places are exceedingly strong. It is doubtless fortunate that the first government aid in secondary education was extended in the vocational field. This is a definite recognition of the functional viewpoint. Thousands and thousands of boys thruout the country are be helped in mastering the fundamental science and its application in such manner as to enable them to do basic thinking in connection with their work? That person who understands the science or other fundamental consideration connected with his daily task has reached the professional level.

In like manner, the ideal of home economics is to make every woman a thinker in connection with her daily task. This takes the drudgery out of work and brings the aid of science to the perfection of a better routine and a better practice.

In my mind, therefore, agricultural education and the other vocational lines of secondary work supported by the national government, are going to prove a tremendous force in securing finally the functional viewpoint in secondary education. With equally well-trained teachers the work can be superior, for the reason that there is constant check thru practice. This forces accurate thinking. The student in latin, of course, under the good teacher, has thinking opportunities. No one denies that. But it is a less vital check, undoubtedly, than such a check as a boy gets if he is carrying an incubator with 300 eggs, or undertaking a field of corn, or attempting a pig project of sizable proportions. As these advantages are better understood, undoubtedly we shall find the vocational subjects increasing in favor with all classes of educators.

Those who are engaged in agricultural education may perform a real service not only to the children directly affected, but to education and educators everywhere, by showing the way in basing the educative process on the child's background of experience, and teaching him to think significantly and fundamentally where formerly he has performed more or less unthinkingly on the basis of imitation and tradition. This contribution to general education, if it can be made to take, will not be less significant than the increased crop yields, more efficient farm management, the conservation and upbuilding of soil resources, and the multiplication of higher life values in the homes of our agricultural population.

If you want knowledge, you must toil for it; if food, you must toil for it; and if pleasure, you must toil for it. Toil is the law. Pleasure comes thru toil, and not by self-indulgence and indolence.

Programs of Agriculture Teachers

H. M. HAMLIN, Iowa State College

[*This is part of a report made at the North Central Regional Conference.*]

ONE hundred thirty-three programs of work for 1929–30 or 1930–31 were examined: 87 from Wisconsin, 21 from South Dakota, and 25 from Iowa. The Iowa programs were the first 25 from a list arranged alphabetically by schools.

An attempt was made to classify the specific items mentioned in the various programs of work but no very accurate classification could be developed because of the variety of forms in which the programs were stated. Certain general impressions stand out clearly, however, from a review of the programs.

The most significant feature noted was that but limited emphasis was usually given classroom teaching and curriculum problems, which would ordinarily be considered to constitute the heart and center of the work of the teacher of agriculture. In two states fewer than a tenth of the teachers indicated any objectives or programs for their classroom work. In the third state course outlines, which gave some attention to teaching procedures, were required as the basic portion of the program of work.

A second significant feature was the priority of emphasis on the improvement of agricultural practices, rather than the education of boys and men.

A third item of interest is the attention given 4-H Club activities. They were mentioned nearly as often as Future Farmer activities.

Three phases which were apparently emphasized disproportionately were publicity, the securing of enrollment, and the training of teams.

The statements regarding the improvement of farm practices, which could be readily classified, were distributed as follows: Crops and soils practices, 50 percent; livestock practices, 40 percent; horticulture and farm management practices, 5 percent each. Two agricultural fields were almost entirely neglected: Farm engineering and marketing.

Conclusions

1. If a program of work is at all effective, it plays an important part in directing the activities and emphasis of teachers. It is unfortunate, in view of this fact, that the programs of work currently in vogue give almost entire emphasis to activities outside the classroom. Unless this is changed, we are likely to have still further slighting of classroom teaching, which has never fared too well among agriculture teachers.

2. Many of our programs resemble too much the programs of county agents. It would be difficult in many cases to tell whether the program proposed is to be subsidized from Smith-Hughes or Smith-Lever funds.

3. While it may be desirable to include in a program of work some statements of improved practices to be introduced, it is unfortunate if these are primary in the teacher's thinking. Programs of work would be better set up

4. Some of the attempts to state purposes objectively lead to a change of emphasis which was undesirable, as illustrated in the case of the teacher who stated his goals as follows: 2,000 bushels of grain treated for smut, 25 flocks culled, 20 orchards pruned, and so forth. Educational outcomes are entirely overlooked in such statements.

5. If agriculture teachers were devoting more of their attention to the improvement of their classroom teaching, they might not need to worry as much as they apparently do about publicity and enrollment.

6. Apparently something still remains to be done toward soft-pedaling the interest in contests among agriculture teachers. Something is wrong when preparing teams for contests gets more space in a program of work than classroom teaching; this was the case in a majority of the programs examined.

7. We still need, apparently, to give more time and attention to management, marketing, and engineering.

8. A satisfactory program of work would emphasize the following points in about the order stated:

(a) Diagnosis of community needs, measurement of results.

(b) Day classes—Courses of study, methods of teaching; supervised practice; Future Farmer activities.

(c) Part-time classes — Courses of study, methods of teaching; supervised practice; Future Farmer activities.

(d) Evening classes — Courses of study, methods of teaching; supervised practice; organized activities.

(e) Professional improvement.

(f) Improvement of plant, library, equipment.

(g) Records and reports, correspondence.

(h) Community work — Fairs, exhibits, contests; publicity and promotional work; activities in connection with farmers' organizations, the extension program; individual services to farmers.

By putting first things first in the program of work, some hope can be entertained that they will be kept first in the thinking of the agriculture teacher.

Ten-Year Service Key Available for Workers in Vocational Agriculture

LAST fall Mr. C. M. Miller, then president of the American Vocational Association, appointed D. M. Clements of Tennessee, R. B. Jeppson of Nevada, L. M. Sasman of Wisconsin, and H. O. Sampson of New Jersey as a committee to consider awards for workers in vocational agriculture. This committee made

was made at the close of the business session on Saturday when most of the men were anxious to leave. After a brief discussion it was voted to submit the committee's recommendations to the state supervisors of agriculture with the request that each vote by mail. By adopting this plan it was possible to decide the matter before the next meeting of the A. V. A.

On December 15 the committee sent out the following recommendations and asked for a vote by the state supervisors:

1. That the A. V. A. sanction the adoption of a uniform key and a uniform certificate for presentation to agriculture workers who have been in service 10 years or more.

2. That either or both of these emblems be awarded by state associations of vocational education, or state associations of teachers of vocational agriculture, the group to make the award in any state to be decided by that state.

3. That the state groups are to decide which men in the respective states are eligible to receive the awards, how the expense is to be met, and when and how the awards are to be made.

4. That this committee select the design for a key and a certificate and make arrangements to have them sold only upon order of a state supervisor of agricultural education or a state director of vocational education, and at the price agreed upon by the committee and the manufacturing firm.

The result of the vote was 38 to 1 in favor of the recommendations.

Following the vote of the supervisors, the members of the committee and Vice-President Fife were sent the various designs that had been submitted by manufacturing jewelers, and asked to make suggestions and return them to the chairman of the committee. These suggestions were then considered and a design submitted by the L. G. Balfour Company was finally selected. Following this a contract approved by Vice-President Fife was made with this company and the keys are now available.

The cost is $4.50 each in 10-K gold and $2.75 in gold filled. Orders are to be sent direct to the L. G. Balfour Company, Attleboro, Massachusetts. A supply of order blanks has been sent to each state supervisor of agriculture. A blank is required for each order to insure proper engraving of each key. No key will be sold by the company unless its sale is authorized by a state supervisor of agriculture or a state director of vocational education.

According to the vote by states, each state group of agriculture teachers is to decide which men are eligible. A state may define what is meant by 10 years of service, whether continuous or not, or whether the service is all in the state awarding the key or in other states. A state may decide to honor only selected men, or it may allow all 10-year workers to have keys. The state association may pay for the keys, or they may be paid for by the individuals receiving them. All the committee did was to adopt a design and make its sale possible only upon the authorization of a state supervisor of agriculture or a state director of vocational education.

The wording of the vote is "agricul-

Supervised Practice

Wyoming Project Standards

CARL G. HOWARD, State Supervisor for Agricultural Education

Carl G. Howard

THERE are three important uses to which project standards should be put by all teachers of vocational agriculture. While these uses are essential for all teachers in assuring maximum efficiency in instruction, they are particularly necessary for beginning teachers. The three uses for project standards are as follows:

1. Aid and guidance of the teacher in checking completed project record books.
2. Assistance and guidance of the pupil in selecting his project, and budgeting his expenditures and receipts.
3. Formation of the basis upon which to build class studies of farm economic problems.

While these uses are sufficient to demand that each teacher of vocational agriculture set up or assist in setting up certain project standards, there are other uses and reasons for them which grow out of the three uses mentioned.

The words "project standards" may mean something different to each individual who uses them. For that reason it seems necessary, in order that there be no confusion in interpretation, that certain limitations be set up arbitrarily. In this article "project standards" means average achievement goals which should be attained by any boy with a project in the enterprise to which the standards apply, before the project is approved by the teacher. Boys who achieve the objectives or goals indicated by these project standards are classified as having conducted satisfactory project programs for the year. Boys who exceed the standards are classified as superior, while those who fall below the standards are classified as inferior. It is assumed that a seasoning of common sense will be used in the application of any standards to the supervised practice program of any boy.

To further limit the meaning of project standards the addition of the word minimum may help in making clear the meaning intended. There appears to be, then, a need for average minimum standards in all enterprises in which supervised practice is carried on under the direction of the teacher of vocational agriculture.

Limitations

Because of the wide variation in conditions existing in the several sections within any state, it seems logical to

be applied as a yardstick to any and all projects within the state. If by applying the yardstick is meant laying off the distance covered by the boy as compared to the distance he should have covered in terms of the standard, this premise is entirely sound. While project standards will vary from community to community, the foundation upon which each set of local standards is built may be set up on a state-wide basis without loss in efficiency.

The committee for the Western Region on project standards recommended that the state supervisor in each state assume responsibility for calling together groups of teachers in sections having closely similar farming conditions, for the purpose of developing sectional standards, and recommended that wherever community conditions are different from conditions in the section as a whole, teachers should be encouraged to set up adequate local standards. This committee further deemed it unwise to set up state-wide project standards, because of the widely varying conditions existing in every state. However, the committee believed that all teachers need minimum average project standards.

Project standards for any state, then, will be more or less usable in every section of the state, depending on local variation. This seems to indicate that the primary reason for setting up state-wide project standards, and the only legitimate reason for their development, would be that of mechanics.

In Wyoming it was felt that so-called "Wyoming Project Standards" might be of little or much use in any community, but that in developing district or community standards they would serve as a guide to the end that each teacher might be materially aided in his own problem of establishing his own community standards. In other words, the mechanics of developing achievement goals on a local basis seems to be very much expedited by the establishment of average minimum goals for the state.

Procedure

Due to the time of year which was most feasible for the development of these standards, they may or may not be technically state standards. The Wyoming research committee is composed of the state supervisor, the teacher trainer, and four teachers within a radius of 50 miles of the state office on roads permitting rapid and easy year-round travel. This committee took upon itself the task of preparing cost analyses and project standards for three major crop projects, and three major livestock projects as its work for 1931–

ports over several years provided a base upon which the committee could build, making allowance for annual and geographical variations. The averages from the project summaries were revised on the basis of the specific and general state knowledge and experience of the members of the research committee. The final figures indicated what might well be an average expectation or achievement goal for the average community within the state. The committee assumed that each teacher would face the annual task of inserting, opposite each item, the variation caused by the annual fluctuation and the geographical or seasonal variation, before he could make efficient use of the standards as set up.

The six average minimum project standards and cost analyses prepared by the research committee will be submitted to the conference group at the annual conference in July, in an effort to include all teachers in the state in the formulation of other enterprise standards and analyses and the revision and approval of those which have already been prepared, the end in view being that each teacher will have a hand in formulating some general standards to make the local standards easier to work out and more definite and usable.

Local or community figures will then be used to check items appearing in the project record book of each boy and in determining how his figures compare with his objectives and the average achievement goals for his locality. Facts contained may serve as a check on the selection of projects, budgeting estimated expenses and receipts, and in comparing average costs with any boy's project costs at any time, which might well result in changed practices on the part of the boy previous to the completion of his project. Farm economic studies attempted by the teachers of vocational agriculture may be checked by the project standards, and the extent to which improved practices are engaged in by the boys may be easily determined.

Enterprises analyzed and standards made were selected by the committee on the basis of frequency of selection as shown by the project report which indicated the election of projects for 1931–32 by each boy in the state. The three livestock enterprises chosen were: Poultry for egg production, beef production, and swine production. The three crops enterprises were: Potato production, wheat production, and corn production.

All of the standards have assumed approximately 150 self hours for the project as an average minimum number of hours which the boy must put in on

shown in the standards were arrived at by a slight revision of the 10-year average returns for the state. A flat rate of 20 cents per hour for self labor was used thruout, and other items were estimated on the basis of present prices and averages over a period of years.

AVERAGE STANDARDS PER BIRD FOR WYOMING POULTRY PROJECTS
(Egg Production)

Scope, hens	75
Self hours	2
Yield per bird, dozen eggs	14
Total costs	$1.52
Total returns	2.80
Net profit	1.28
Paid self for labor	.40
Total project income	1.68
Returns per dozen	.20

AVERAGE STANDARDS PER HEAD FOR WYOMING BEEF PROJECTS

Scope, heifers	5
Self hours	25
Yield per head, pounds (4/5 calf)	384
Total costs	$17.60
Total returns	21.50
Net profit	3.90
Paid self for labor	5.00
Total project income	8.90
Returns per cwt.	5.60

AVERAGE STANDARDS PER HEAD FOR WYOMING SWINE PROJECTS

Scope, sows and litters	2
Self hours	90
Yield per head, pounds	1,200
Total costs	$45.20
Total returns	69.60
Net profit	24.40
Paid self for labor	18.00
Total project income	42.40
Returns per cwt.	5.80

AVERAGE STANDARDS PER ACRE FOR WYOMING POTATO PROJECTS

	Dry Land	Irrigated
Scope, acres	5	2
Self hours	30	75
Yield per acre, cwt.	60	100
Total costs	$31.64	$61.70
Total returns	60.00	100.00
Net profit	28.36	38.30
Paid self for labor	6.00	15.00
Total project income	34.36	53.30
Returns per cwt.	1.00	1.00

AVERAGE STANDARDS PER ACRE FOR WYOMING WHEAT PROJECTS

	Dry Land	Irrigated
Scope, acres	20	10
Self hours	8	12
Yield per acre, cwt.	12	20
Total costs	$10.80	$20.34
Total returns	15.36	25.60
Net profit	4.56	5.26
Paid self for labor	1.60	2.40
Total project income	6.16	7.66
Returns per cwt.	1.28	1.28

AVERAGE STANDARDS PER ACRE FOR WYOMING CORN PROJECTS

	Dry Land	Irrigated
Scope, acres	10	5
Self hours	16	30
Yield per acre, cwt.	12	24
Total costs	$10.01	$19.10
Total returns	12.00	24.00
Net profit	1.99	4.90
Paid self for labor	3.20	6.00
Total project income	5.19	10.90
Returns per cwt.	1.00	1.00

Checking the Value of Improved Farm Practices

H. P. ERWIN,
Instructor in Vocational Agriculture,
Sullivan, Illinois

ONE of the most convincing ways to demonstrate and sell better farming practices to a community, I have found, is thru carefully supervised project work and thru giving the job publicity. By carefully supervised, I mean encouraging the boy to take the lead, the responsibility and to do the work with the teacher giving aid only when the boy actually needs it. Two years ago our boys in the agriculture classes here were required to field select and store 10 bushels of seed corn. Some of the selections were made from varieties that were mixed and run down. Last year I suggested to those boys who were taking corn as a project that they check their field-selected seed plots against their father's crib-selected plots to determine

with a total of 45 acres of corn ran one-acre check plots in their cornfields and weighed the corn. One of the boys found a difference of five bushels per acre increase for field selection, one two bushels, and two of them found an increase of three bushels per acre. Such stories, written up by the boys themselves and published in the local papers, helped in making the school work more effective in actual community practice. Another way I have found to use results of project work is in father and son banquet programs. Boys like to tell about the things they have done successfully and parents enjoy hearing them. In fact, one way to have a successful banquet is to get as many boys on the programs as possible and, of course, see that each boy is prepared to do his part.

Summer Teaching Vs. Visiting

THE best teaching by our best teachers takes place during the summer months. Some men appear to go thru the motions of visiting pupils and credit themselves with so many visits of a very perfunctory nature. The difference may not be obvious in the immediate project results, but it is sure to appear in the long term results.

The boy was (or should have been) placed for the summer with the distinct understanding that certain farm skills were to be gained under supervision. In the absence of the instructor some person agrees to assume this responsibility. The teacher should check on the progress in this line at the time of each visit and in many cases will find that further lessons are needed. This is especially true of boys who have no real projects.

The field or barn is the laboratory in agriculture. Here the boy learns the technique, but he also encounters problems which no amount of classroom teaching would have made so real. Dealing with these problems while they are fresh is one of the most valuable teaching opportunities. Next fall may be a good time to review them, but the vital learning period is now.

With real projects new decisions will be called for due to unforeseen developments. At times the teacher may have to give arbitrary directions to meet the emergency, but when it is possible to discuss the new difficulty and arrive at decisions, the pupil should amend his plans in the same manner in which he made the original. This requires frequent visits which are not hurried.

Many interesting observations that may break the monotony of farm routine are overlooked by pupils. The habit or the attitude of looking for interesting things is not apparent in some boys, but a skillful teacher may bring it out with persistent attention. With some persons this habit, when developed, changes intolerable drudgery into an interesting experience. The farm may be either, just as you take it, but the interest of some teachers in the wonders of nature seems to be contagious.

Furthermore, farming is both an occupation and a mode of life. Teaching during the summer, or on the projects at any time, must not neglect either of these phases, and the interest of the teacher must be real rather than per-

visit as profitable to the pupil as possible. He should establish himself as firmly as he can with the parent or employer.

The scholarship and other items should be transferred to the life history folder early in July. A careful review of these will reveal some problems regarding the boy's prospective work which should not be postponed. While he will not care to do a lot of studying during the summer, he should be encouraged to remove any existing handicaps before September.—Massachusetts Staff Letter.

Boy's Project Becomes the Major Farm Enterprise

LESTER S. HESS,
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A DAILY round-trip drive of 44 miles to attend a high school class in vocational agriculture may seem unusual in a comparatively thickly populated state like New Jersey. Nevertheless, there are groups of farm boys in the state who make daily journeys of this length in order that they may study vocational agriculture.

These boys have a real objective in view; and they do a good job in achieving the objective. Forrest Jennings of Atzion is a young man of this type. He grew up on a vegetable farm where meat poultry furnished a respectable side line. He felt he would like to enlarge this phase of the farm business, but he wanted to do it along the right lines. The nearest point where systematic instruction in vocational agriculture was offered was the Moorestown High School, 22 miles away.

In the fall of 1925, he enrolled in the agriculture classes. He was glad that the project was a required part of the course, because it enabled him to start in business at once. Naturally he selected poultry raising for his project. His original project has now become the major enterprise on the home farm.

The first year saw the project start with a modern brooder stove in improvised quarters in an abandoned dwelling. He provided inexpensively the necessary sanitary conditions, proper feed, light, and so forth, as he had been taught in the agriculture class.

His project the first year was a financial success; the next year a New Jersey brooder house was built. The project grew each succeeding year until now six modern brooder houses, several of them multiple units, dot the landscape.

All of the buildings were built without expensive, skilled labor; Forrest was his own architect and head carpenter. Much of the frame lumber was sawed from timber on the home farm, which was cut during slack seasons and delivered to a nearby custom sawmill.

Other major improvements, such as abundance of running water and electric lights, have come with the development.

All of these installations were made by young Jennings himself. While in Moorestown High School, the farm shop work provided fundamental instruction which serve as a basis for this work.

Forrest learned not only the fundamentals of poultry production, but also

Methods

Trends in the Course-of-Study Organization for Agriculture in Minnesota High Schools

A. M. FIELD, University of Minnesota

A. M. Field

ALTHO agriculture as a subject in the high school is of relatively recent origin, it has in no way escaped the uncertainties of pioneering activities. When agriculture was first introduced into the public schools, there was no precedent as a guide to organization except the departmental units developed in the colleges of agriculture. The departmentalization in the colleges is organized on the types-of-subject-matter basis. Naturally, this influenced the procedures followed in developing the program for agricultural instruction in the high school. Consequently, yearly subject matter units were established with the similarity of enterprise content as the basis for determining the materials to be studied each year. The following is a representative type of organization usually followed during the initial years of the program of instruction in agriculture in the high schools:

First year: Farm crops.

Second year: Animal husbandry.

Third year: Soils, dairying, or horticulture.

Fourth year: Farm economics and farm management.

Altho this plan of organization embodies many excellent features, there are some reasons for believing that it does not entirely meet the needs of students enrolled for instruction on the vocational basis. The following statements are ventured as partial, possible reasons why the plan of teaching all the crop enterprises one year, the animal enterprise another, and farm management the last year, does not seem entirely satisfactory for students in the classes in vocational agriculture:

1. Placing the crop enterprises in one year and the animal enterprises in another is not consistent with the way a farmer farms.

2. The plan assumes that the students have the mental ability, the interests, and the background of experiences necessary to master all the needed information about each enterprise placed in each year without regard for the range of difficulty of the content for each enterprise. For example, there is much content for each crop enterprise that is too difficult for freshmen. Good organization in teaching puts the emphasis on appropriate material that the boy can learn and not on what the teacher can teach.

3. The plan places the emphasis on learning subject matter instead of learning how to farm. Books and bulletins should be used as sources of information rather than content to be learned. Emphasis should be placed on the vocational set-up rather than the subject matter set-up.

4. The plan does not encourage the boys to study the home farm as a type of farming unit. Students should study the enterprises in their relationship to the proper management of the farm.

5. The plan is weak because students who take only one year of agriculture do not get a very good idea of how to farm.

6. The plan does not give proper emphasis to appropriate problems of farm management in the early years of study. Only a few of the students continue thru a four-year course in agriculture.

7. The plan places a premium on a superficial study of many enterprises instead of teaching well fewer of the enterprises most appropriate for the home farms.

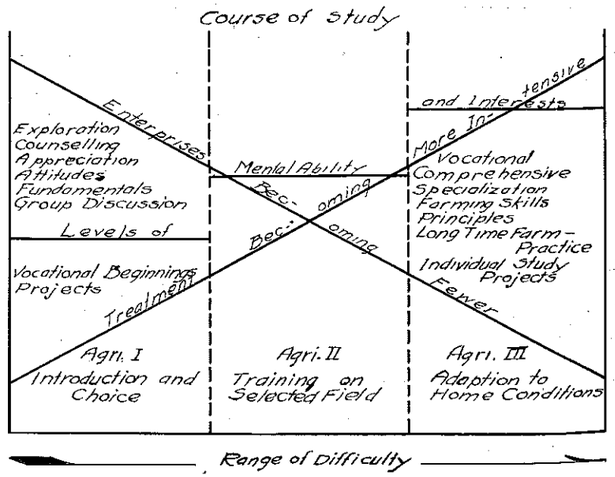
8. The plan tends to narrow the scope and variety of the farm practice program.

9. The plan does not give adequate opportunity for recognition of individual needs and experiences.

The Course of Study

The plan for teaching agriculture in the high schools in Minnesota has been designed to escape in some measure the weaknesses of the early type of organization. Because of the small enrollment in the fourth year of agriculture, the work is largely limited to three years. All the content in agriculture is regarded as a continuous course extending over three years, with one unit of credit for each year. Each succeeding year portion is designated as Agriculture I, Agriculture II, and Agriculture III, respectively. The organization breaks away from the system of teaching crops one year and livestock another and permits the development of a program of instruction and study on the types-of-farming basis. The content can be selected, distributed, and developed thruout the three years according to the abilities, interests, and needs of the students for each year, and can be arranged to progress in sequences of difficulty within the enterprise. A mere mixing of complete animal and plant enterprises the same year does not meet the last standard. Seasonal sequence and teaching sequence can be used to excellent advantage under the proposed plan and the farm practice of each student will take on a new meaning because it becomes the core of his course in agriculture instead of tacked on as a requirement. The plan also provides excellent opportunities for individualized instruction and utilizes to the fullest extent the creative abilities of the students.

Chart I is designed to show graphically the course-of-study organization as developed in Minnesota. Reading from left to right the chart is supposed to show that the work in agriculture is a continuous course, that the number of enterprises decreases as the students progress to a more intensive study of



the home-farm problems, and that the problems of study become more advanced and more complex as the students gain experience and maturity. Each student is supposed to emerge at the end of three years with a rather complete plan of improved organization and procedure for the home farm.

The distinctive feature of the plan of organization shown in Chart I is that it promotes the development of a program of instruction, of study, and of farm practice on a particular type-of-farming basis. The type of farming in a community is determined by the common characteristics recognized in the farming of a certain group of farmers. It is influenced by such factors as soils, climate, markets, transportations, topography, and the personal interests and inclinations of the farmers. From this point of view it becomes possible to identify certain types of farming activities dominant on the home farms of the students enrolled for instruction in any class in agriculture. The content of the course of study in any school is influenced by the types of farming represented by the students and by the type of farming considered most desirable in the community, and by the practices in wider areas. The chief determining factor in selecting the content for any specific school group is the type of farming that is or should be followed on the home farms of the students. Usually the type of farming is determined by one or more profitable enterprises. These enterprises are designated as major enterprises and form the core around which other enterprises are co-ordinated. A second group of enterprises necessary in order to carry on the major activities is the contributory enterprises. The contributory enterprises should be given attention in the course in accordance with their importance in contributing to the major enterprises rather than by their number in the community. A third group of enterprises is to be found in certain minor farm activities. The economic importance of these enterprises is variable, and their emphasis for instruction purposes should be flexible to meet changing conditions.

The type of farming on the home farms of the students and in the community should largely determine both the content selection and the teaching sequence for a given enterprise. A student will ordinarily begin with the type of farming set up for the home farm and proceed from the major enterprises to the important contributory enterprises. The minor enterprises are given attention according to their importance and are brought into the course of study as seems advisable.

Organizing the Materials of Instruction

In Minnesota the public schools are committed to the junior-senior high school type of organization. The members of the Agriculture I class are junior high school students, and the course content is selected in accordance with the junior high school standards. The writer believes that the boys in the first year of agriculture are too young, too inexperienced, and too occupationally immature to profit materially from a purely vocational treatment of the problems in agriculture. The median age of boys entering Agriculture I in Minnesota this year (1931–32) is 14 years 9 months. They are mere children who have given little or no thought to selecting a vocation. Exploration and guidance should precede specialization for these students. In general, the objective for Agriculture I is to give the students an introduction to the fundamental problems of agriculture and an appreciation of the opportunities in farming and related occupations. An important feature of the work is the attention given to occupational information, orientation, and occupational counseling. The farm practice required in the form of projects gives the student the occupational exploration and experiences considered appropriate to the junior high school organization.

The students unable to go on with high school work, and the students not interested in preparing for the farming occupations will not enroll for Agriculture II. The students in the second year are, therefore, selected on the basis of mental ability and occupational interest. With this selected group the teacher goes on with the more vocational and more difficult phases of the work in agriculture. At this point the students begin intensive study of the economic set-up of farming as expressed in the activities of the home farm.

The program of instruction and study progresses each year to the more involved problems of the management of the home farm. Such problems as soils, farm management, marketing, and social-civic activities are incorporated as they naturally arise in planning the farm activities. After all, no farmer farms in general. Farming is done on a specific farm, and the foregoing method permits the students to learn how to farm thru experiencing farming on a farm in which they are interested.

Agriculture III is a continuation of Agriculture II except that the content and problems become more difficult and complex and the work may be even more individual than in previous years. The students work on problems peculiar to their needs and the needs of the home farm. The students learn to think in terms of farm problems. To become good farmers the boys must learn to think good farming. The plan in no way limits the students' opportunities for as wide a study as their mental abilities and interests permit. Chart II shows a suggestive horizontal subject-matter distribution for the unit of work on breeds of dairy cattle. The basis for selecting the items for each year is the point of view presented in Chart I.

Agriculture I	Agriculture II	Agriculture III
Dairy Breeds Jersey Guernsey Holstein Ayrshire Brown Swiss Milking Shorthorns and others Dairy type Selection Judging	Dairy Breeds Holstein (or other) Characteristics Adaptability Types Selection Judging Breed improvement Sires Breed records Testing herd Grading up herd	Dairy Breeds Holstein (or other) Breeding Genetics / Pedigrees Advanced registry Proven sires Breed organization Opportunities in purebreds vs. grades Breeders

Chart II. Suggestive Horizontal Distribution of Dairy Breed Content for Each Year of Agriculture.

In Agriculture I the students become familiar with the various important breeds and within the breed. In Agriculture II and III special emphasis is directed to an intensive study of the particular breed found on the home farm of each boy. As the students gain in maturity and experience they proceed to the more technical and difficult problems involved in breed improvement.

The following criteria are suggested as helpful guides in determining the content for each year of agriculture:

1. The content of each year should be determined with reference to the experience, needs, abilities, interests, and opportunities of the students.

2. Abstract, technical, and unifying content should come late in the course of study.

3. Occupational information and counseling should precede specialization.

4. Farm management should be integrated thruout the three years of the course of study, according to the needs and abilities of the students.

5. Important and difficult materials should be reviewed and extended in succeeding years.

6. Provision for individual study should increase each year.

7. Provision for farm practice should come early in the course.

8. Seasonal sequence should be recognized but should not materially interfere with teaching sequence.

9. Mechanical activities should be given recognition as the need arises.

10. The program of instruction and farm practice should progress each year from the informational type of the first year to the more difficult and involved problems of management the third year.

11. The subject matter is selected and treated as a medium for developing appropriate attitudes, ideals, concepts, appreciations, knowledges, habits, skills, and satisfying activities.

In this brief treatise it is not possible to present a complete pattern of the set-up in operation. If the discussion evokes a more thoughtful consideration to the many problems involved in teaching agriculture it will have served its purpose.

Daylight Pictures

N. E. FITZGERALD,
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FOR some years we have been demonstrating the use of the ordinary stereopticon in the showing of pictures in daylight. This is not done with the expensive specially made daylight screen. The study began with the use of a ground glass about 2 x 2½ feet but even that was discarded for simpler equipment several years ago.

The ordinary stereopticon is used, but a change in the length of the objective is required if a picture about 2 x 2½ feet is desired. The objective used for most classroom conditions is 10 or 12 inches (marked on the front end of the objective). Recently, in the laboratory tests, it was found that a standard machine with a 12-inch objective made a picture entirely too small for class use. With a standard make machine with a 5.5-inch objective it was found possible to secure a splendid picture 2 x 2½ feet with front of the machine about five

Farm Mechanics

Teaching Farm Machinery Repair in the School Shop

GEORGE H. KRILL, Instructor in Agriculture, Ashland, Ohio

[Editor's Note: The following article pictures a type of farm mechanics work found all too rarely in school shops. The repair and upkeep of farm machinery is of such importance as to merit much more time and effort than the average teacher allows.]

AGRICULTURE, like other industries, is feeling the effects of the machine age. Expansion in every phase of agricultural production has taken place rapidly in the past quarter century. This rate of expansion, if continued, may bring about a surplus that eventually will ruin American agriculture. Just as the introduction of farm power in America in the past half century has revolutionized farming, lifting it from mere peasantry to one of the basic and respected occupations of American life, likewise can the reckless and wasteful utilization of this power bring upon rural life a burden of indebtedness less desirable than peasantry.

Ten years ago the first machinery evening course was held in Ashland. A room was secured from one of the implement companies. Only old machinery was used for study. The course continued three weeks and was conducted by a trained man from the farm engineering department, under the direction of the state department of vocational education. Several mowers, binders, plows, drills, and corn planters were repaired. About twenty young men beyond high school age attended this three weeks of instruction. This course was the beginning of practical instruction in farm machinery in Ashland. We decided, after completing the course, to make this type of instruction available to the regular high school pupils in vocational agriculture. This was not an easy task, with no facilities and equipment. However, "Where there is a will there is a way." At least this proved to be true in our case. The need of more practical instruction in all phases of agriculture teaching was felt. To carry out demonstration, observation, and participation, a certain amount of equipment was necessary. To have asked the board of education for this equipment outright might have met with disfavor. To ask the board to support us in earning money for this equipment seemed advisable. After thoro consideration, a power sprayer was decided upon as being the most practical problem for the boys as well as for the needs of the community. To equip, operate, and care for such an outfit would teach the boys mechanical and business principles as well as operative skills.

The board of education loaned the money to the department to buy the sprayer, which was a 100-gallon, self- for $15, overhauled it and mounted the sprayer on the chassis. The power to operate the sprayer was taken from the Ford engine. The care, management, and operation are carried on by the boys in the department, under the direction and supervision of the instructor. This is the fifth season of its operation and each year our volume of business has increased. The past season, approximately $1,000 worth of spraying was done for the people of the community.

What have been the results of such a program? The community has been benefited by getting spraying done that they could not profitably do themselves. Small farm orchards, previously neglected, are now being sprayed and taken care of and are producing quality fruit for their owners at a minimum cost. The boys in the department have been benefited. First, it gave them an opportunity to develop skills and study many practical problems. It gave the boys, as well as the department, a chance to earn some money that could be used in other phases of agricultural instruction.

The greater part of the loan was paid off the first season. At present, we have a reserve set aside to be used in the purchase of new equipment for the outfit, if needed. We used considerable money earned in this way to better equip our farm shop. In fact, our agriculture department has paid its own way since the sprayer has been in operation.

More Repair Work Each Year

Each year that farm machinery courses have been taught, we have tried to make the courses more practical. More time is given to the study of old machinery, its care and repair, and less time to the study of new machinery. This year, we started in by overhauling a corn binder that a farmer had planned to junk. The total cost of new parts was $16. After the work was completed, the farmer refused $75 for the binder. Some of the jobs performed were replacing old gathering boards, replacing worn main gears, adjusting parts, and cleaning and painting, giving the machine a new appearance.

Since then, we have overhauled and painted 3 mowers, 1 grain binder, 1 two-row corn plow, 1 corn planter, a grain drill, and several gasoline engines; the cost of new parts ranging from $3 to $12. The machinery brought in had been in use from 12 to 30 years. We feel that these re-conditioned machines will do the work of new machinery for years to come and the cost of repair parts is less than the interest charge of a new ma- teaching problems which were at one time more or less of a burden are now a pleasure. Interest in the work on the part of both boys and parents is high at all times. We have established the confidence of the parents and the whole community. As a result, we have no difficulty in securing old machinery to repair, but can get many times the amount of machinery we are capable of handling. Our aim is to keep a balance between our recitation and laboratory work. Thus we learn certain mechanical principles and operations. The boys in the day courses, the young men's evening course group, and the older farmers of the community are recognizing more and more the large investment in machinery and its costs on the farm. They are beginning to realize that prices and returns from farm products, even during the more prosperous years, do not justify junking old machinery just because some parts are worn out or its working principles somewhat out of date. The problem facing the farmer today is not so much a matter of what make or kind of new machine to buy as a matter of profitable operation of the machinery already on hand. On every farm there is machinery that could be put in condition to function for many more years, if the owner had the knowledge and skill to do the work.

At our first farm machinery evening course an old mower that had been in heavy use for 20 years was brought in. It was repaired and painted at cost of $6.85. It has cut 60 acres each year since, and this year it was brought in for repair again, by the farmer's youngest son. We repaired and painted it once more at a cost of $5.84 and we feel positive it will do creditable work for at least eight or ten more years. If it does, it will have served in its capacity 40 years, which is as it should be with most machinery, if properly cared for.

The purchasing and operating of farm machinery is a business proposition. Machinery will remain a part of the farming business. It must return a profit on its investment. If the present financial condition of the American farmer is a criterion of the success the machine age has brought to him then, may God help him. If, however, it is an indication of what it might have done for him, if investments in machine power had been more carefully considered and more wisely made, and if machinery could have lived out its usefulness instead of being left to rust and decay thru lack of shelter or junked because of a missing link or a worn member, then farm machinery can be-

Shop Display in Vacant Store Windows

J. W. NEILSEN,
Instructor in Vocational Agriculture,
Sydney, Nebraska

DURING these days of mild business activity many store buildings in town are not only vacant but present an undesirable appearance, with unkept show windows which are dirty or rain streaked, and probably plastered with stickers, sale bills, and placards. Such show windows are not only an eyesore but have a depressing effect on passers-by and present an unfavorable reaction from strangers coming into town.

In our town the Lions Club, of which the vocational agriculture teacher is a member, undertook to do away with unsightly show windows by arranging for filling them with attractive displays of many kinds. The members spread the idea and soon the committee had many calls and suggestions for fulfilling this public service.

What could be better publicity for the F. F. A. than to fill two or more such windows with neat displays of shop construction projects? The Sidney Future Farmers went to work with a will and, using inexpensive lumber, much of it scrap wood that would otherwise have been used for kindling, constructed two complete sets of poultry yard equipment. One set demonstrated simple inexpensive baby chick equipment and the other set included a complete line of fixtures for a flock of laying hens.

The baby chick projects included a hover for 100 chicks, three chick feeders of different types, a hardware cloth feeding platform, a sanitary watering platform, a training roost for the brooder house, and four corner guards. The hover was made with an old discarded tub inverted and set up on three legs to hold it four inches off the floor. A narrow piece of canvas was then fastened around the edge and cut at two-inch intervals to form flaps which would allow the chicks to enter and still keep the heat from an electric light bulb inside. Hot water jugs would serve the same purpose as heating units.

All pieces were neatly painted with red barn paint, and the whole made an attractive display. Placards placed alongside the projects indicated costs, extremely low, and also explained the uses and practical values of each piece to the poultryman.

The laying flock display was suitable for a rather large show window. This group included a battery of nests made from orange crates, an alfalfa rack, an indoor reel top-mash feeder, a sanitary watering platform, a shell hopper, and a milk dish support with a canopy over the top to prevent the hens from stepping into the crock. This equipment was also painted and arranged as logically as possible in the confined space of a store window. Placards again explained to the passing public the cost and the utility values of the equipment.

The general arrangement and plans used in the construction conformed to plans for similar equipment recommended by the poultry extension service of the college of agriculture. This indicated uniformity of purpose and effort on the part of the department of voca- ment for chick production and for laying hens.

The empty interior of the store building was obscured from view by a background of wallboard which was not damaged and could be used for other purposes when the display was removed. The windows were thoroly washed and kept clean by frequent mopping both inside and out. Rubbish and dirt accumulated from the streets at the store entrance were kept cleaned up. The whole served as an interesting shop project which was also timely in that the demand for construction project has been small because of general conditions. In addition to the construction work afforded, the job also involved careful planning, figuring of stock bills and material costs, poster making, and training in co-operation.

Incidentally, the Sidney chapter of Future Farmers and the school benefited thru bringing their work before the public and demonstrated their desire to co-operate with the local service club in its efforts to make Sidney a more desirable community.

Agricultural Instructor Needs Car Trailer

EVERY agriculture instructor should have a department car trailer that can be used by the instructor and the boys in the department. A trailer of this kind can be easily built in the farm shop by the boys at very little cost. O. D. Dearborn, former agriculture instructor at Rainier, Oregon, tells one use he made of a trailer.

"In Rainier we have a peculiar layout of roads, many of which dead end in the hills among the stumps of some new settler's place. Some of the new places are so little developed that only one or two cows can be kept and perhaps one pig. When the boy on such a place has this background, I have endeavored to get him to select gilts of good breeding to start his project. In this way we are rapidly changing to good stock, but our one big problem has been to get these sows to a good boar, as the territory covered is large.

"The average farmer will not go to the trouble to go far for a boar, but will use the most convenient one near, regardless of breed or breeding. In order to meet this difficulty we built a trailer in the shop to use for hauling these sows or any stock about. Hauling a sow to a boar makes not only a project supervision with a definite, practical purpose, but also insures the completion of a project with desired offspring. In addition to this being a supervision, it is a service that the dad readily appreciates. He also sees a product of the farm shop he paid taxes to support in actual practical use."—The Vocational Oregonian.

A farm shop job that meets an immediate productive project need, or home farmstead need is worth several times more than the same job assigned for the purpose of keeping the pupil busy.—L. B. P.

In many types of farming, success is determined in no small degree by the skill of the farmer in adjusting, operating, and repairing machinery and equip-

Use of Systematic Instruction in Farm Mechanics

T. P. OLIVER,
Instructor in Vocational Agriculture,
St. Anne, Illinois

THERE are two methods of instruction generally used in teaching a farm shop class. The first is the group method and the other is the individual or project method. In the first the instructor divides the class into two or more groups, and each group works on a certain enterprise for a certain length of time. In the second method each boy selects one or more projects for his year's work and proceeds to work on them under the supervision of the instructor. Both of the above methods have their advantages, but I have found that each has the following disadvantages. The group method (1) does not provide for the interests and needs of the individual, (2) does not provide for individual differences, and (3) the teacher assumes the responsibility in place of the boy. In the individual or project method (1) the boy may not understand how to do the job, therefore time and material are wasted; (2) each boy should do some preliminary study before undertaking a project; (3) the instructor cannot be at eight or ten places at the same time, or it is hard to supervise each boy on his project. I have found that a combination of the two will give me the best results as it seems to strike a happy medium.

In the first part of the year the boys are grouped, and we have what we call preliminary shop work. We teach them soldering work, rope work, leather work, forge work, concrete work, how to care for, sharpen, and repair tools, and so forth. After preliminary work on the important enterprises has been done, the student is required to plan and conduct individual shop projects according to his interests and the needs of the home farm. Before undertaking any individual shop project of importance, each boy should be required to make a brief plan. He should be encouraged to exhaust all reference material before taking the instructor any questions pertaining to his project. Some of the individual projects that we have completed or now have under way are: mounting a feed grinder on an old Ford chassis and running it with the motor; making a four-wheel trailer out of an old Ford chassis; making a small trailer out of the two rear wheels and rear axle; making self-feeders for poultry and hogs; making self-drinking fountains for poultry out of old gasoline tanks; making a garden tractor out of an old Ford motor and chassis. Before we begin the individual project work, we have a form letter we send out to the boys' parents. In this letter we ask the parents if they have anything around home that needs repairing that the boy could bring to school and work on as a shop project. We explain how the work is carried out and assure them of a good repair job and the return of the article in a reasonable length of time. Also when visiting the boys' projects, I look around and see if there is anything that he might bring to school and use as a project. In this way I have managed to get projects for the boys and to give them something that I think is worthwhile. The parents think more of shop than ever

Evening Schools

Unit Courses Taught in Evening Agricultural Schools

JAMES H. PEARSON, Specialist in Agricultural Education
(Part-time and Evening Schools)

James H. Pierson

THAT the content of the instruction in evening agricultural schools must be based on the specific need of those persons enrolled is a fundamental principle to be followed in organizing a school. Therefore, traditional courses must be replaced by those developed on specific situations in the local community. Such a transition has taken place in evening agricultural schools because it was soon learned that farmers would respond best when they were dealing with difficulties which they were encountering in their daily farming activities. The fact that local farmers largely determine what the content of the evening school course will be has stimulated this transition. It is one of the few cases in the public education system where persons enrolled in the school have anything to say about what the content of the instruction will be.

Facts regarding the content of the instruction in evening agricultural schools have been compiled for the year 1930–31. They are herewith presented with some interpretations of the data. Approximately 10 percent of the courses were designated as farm problems, improved practices, or otherwise named in such a way that their exact content could not be determined. They were, therefore, eliminated from the compilation. It is believed that the spread of the content over the various kinds of unit courses would be similar to this data.

UNIT COURSES OF INSTRUCTION, 1930–31

Name of the Unit Course	Relative Popularity in Percent
Poultry	13.09
Farm organization and management	12.54
Soil improvement	11.79
Dairy	6.99
Cotton	6.13
Soils and fertilizers	5.55
Marketing	5.01
Hogs	4.39
Cotton–corn	2.95
Cotton–grain	2.92
Home gardens	2.70
Corn	2.23
Feeds and feeding	2.09
Potatoes	1.91
Vegetables	1.80
Tobacco	1.76
Tomatoes	1.22
Legumes	.90
Horticulture	.90
Cotton–oats	.79
Cotton–tobacco	.79
Landscape gardening	.72
Fertilizers–marketing	.54
Cotton–potatoes	.54
Sheep	.46
Crops	.39
Cotton–asparagus	.36
Tobacco–asparagus	.36
Cotton–cucumbers	.32

Other courses appearing less frequently than those listed are hay, oats, beef cattle, beans, canning, co-operative buying, pastures, certified seed, animal diseases, swine sanitation, watermelons, peanuts, wheat, insect control, berries, plant diseases, hogs–poultry, fruit–poultry, fruit–dairy, poultry–sheep, and soils–marketing.

What the Courses Included

The poultry courses included instruction on all kinds of birds as well as the different poultry products, such as eggs, broilers, baby chicks, capons. The fact that poultry is found on practically every farm, that a poultry course appeals to both the farmer and his wife, that the production of poultry is for home consumption as well as cash income are reasons for the popularity of this course. Whether this most popular course is of most economic importance to the farmer is a question which should be seriously considered in planning future programs.

Farm organization and management courses included instruction in farm re-organization, balanced farming, and the live-at-home program. The low purchasing power of farm commodities stimulated interest in this type of content. Farmers felt that they were compelled to make adjustments in their farming activities to meet changed economic conditions and produce more of their food and feed supplies on the farm. Government and state outlook reports were used to good advantage in determining the price prospects for the different farm commodities. With these facts at hand farmers attempted to make major and minor adjustments on their farms to improve their economic status in light of the prospects for the different commodities.

Soil improvement courses dealt with long-time soil improvement programs, such as terracing, draining, using legumes, liming, using winter cover crops, and plowing under green manuring crops. Practically all of this instruction was done in the Southern Region. The popularity of such a course reflects the need for soil maintenance and improvement work in that section of the country. It is of particular importance to note that farmers are interested in the improvement and maintenance of their soil when agriculture is at such a low ebb. The popularity of the last two courses was due largely to constructive leadership of those persons who have charge of the work in the states where so much work was done along those

corn, and similar production enterprises needs no further explanation than to state that many of the courses were restricted to only a few of the activities in the enterprise or to a consideration of the most pertinent problems rather than attempting to teach all the jobs in the enterprise. It is of special importance to know that the emphasis in these production courses has shifted to decreasing costs of production thru increased efficiency and the production of a commodity to meet market demands rather than increasing production.

The rank of the marketing courses does not give a complete picture of the relative popularity of the instruction on marketing. This compilation includes only the unit courses on marketing. In a great many of the production courses special emphasis was given to marketing the commodity. This in many cases seemed to be a better plan than attempting the instruction in a unit course on marketing only.

In many of the courses listed as combination courses, such as cotton–corn, such type jobs as fertilizing and spacing were the basis for the instruction in the complete evening school program. When two enterprises were included the teachers did not attempt to give instruction in all the jobs in those enterprises.

In compiling the data it was of interest to note how much the type of agriculture and the current agricultural problems in the regions and the states influenced the content of the evening school instruction. Acute agricultural situations caused some changes from long-time plans for evening school instruction to plans to help solve emergency situations. This was very noticeable in the drouth-stricken area. The home garden courses were practically all in one state where food supplies and financial resources were very low.

So long as the evening school instruction is such that it meets the needs of the adult farmers as they recognize the need, such schools have every reasonable chance to succeed and to increase in popularity.

"The Beginning of a New Epoch," page 77 of the March issue of the Journal of the National Education Association, is an article which begins: "A certain famous American has said the American farmer ought to raise more hogs and less hell. All the facts seem to indicate that for the future exactly the opposite is true."

Better sit in the back row and be dis-

Presenting Data to Evening Class Members

E. D. STIVERS, Professor Agricultural Education, University of Tennessee

PRESENTATION of data that will aid members of the group in making decisions is conceded to be one of the essentials of evening school instruction. There has, however, been some question on the part of teachers as to how best to present data. In making a decision on this point two factors should be considered, first the effectiveness of the presentation, and second the amount of time required to prepare for the presentation. One method of presenting data is that of placing mimeographed sheets in the hands of each member of the group. Some teachers have made use of the blackboard, and others have put data before groups in the form of charts.

Observation of the use of these different methods leads to the belief that data are usually more effectively used in conference procedure when they are placed before the group rather than on sheets in the hands of each member.

In some cases the blackboard may be used, but blackboard space is often too limited for the amount of data that should be presented and blackboard space is needed during the progress of the meeting for listing problems and local data drawn from members of the group.

Ready-Made Charts

Teachers often ask concerning the advisability of securing ready-made charts for evening school work. In deciding this question it is important to ask whether the chart under consideration contains specific data that will aid in solving actual problems of the members of the evening school, and whether these data are the most recent to be found. Many charts secured ready prepared not only fail in adaptability to the problems of the specific group, but have been made up somewhat in the form of an outline used in giving a lecture. Such charts are not at all adapted to the conference procedure in evening schools. However, the series of charts on economic problems, published by the United States Department of Agriculture, Bureau of Agricultural Economics, applies to problems in many enterprises taken up in evening schools. These charts are specific and can be used to advantage. Teachers will find, however, that in order to present local and other valuable uncharted data, it is necessary to be able to make charts. They will also find that by using simple methods, any teacher can with a little practice make a perfectly legible chart in a comparatively short time.

The suggestions here presented concerning the making and using of charts are based largely on the plan developed in the six evening schools conducted in Knox County, Tennessee, where prospective teachers are given training in evening school instruction.

One of the first problems in chart making is to decide on the material to use. Wrapping paper of good weight, 3 feet wide, has been found inexpensive and sufficiently durable to serve for ordinary charts for evening schools.

and a teacher can usually purchase a quantity sufficient for his use at small cost, or a group of teachers may club together and purchase a roll of the paper from a supply house. It is advantageous to make all charts of the same length as well as width. Nine feet has been found to be a convenient length for charts 3 feet wide. If several charts are to be used during one evening, they should be placed in the order in which they are to be used, one over the other, and fastened to the wall with heavy thumbtacks before the class starts. A blank sheet should be placed over the outer chart to be removed when the discussion has reached the point where the data are needed. When the teacher is ready to use the second chart, he can, by a little pull at each corner of the used chart, tear it from the thumbtacks with little damage to the chart, drop it on the floor, and his next chart is before the class with practically no delay and without the confusion of rolling and unrolling charts.

For lettering charts a small brush such as is used in water color work or in oil painting has been found satisfactory. Black show card ink is used. It has been found that black ink shows up much better than any other color at night, so the use of different colors for the purpose of distinction has been discarded. The lettering on the chart should be of a type easily read and that consumes a minimum amount of time in the making. Fancy lettering is of no advantage, and a teacher without training in lettering can easily learn to make legible charts.

Making Charts

In making charts for evening schools it is perhaps best to use only capital letters. These letters are better and more quickly made by the average person than are small letters, and charts made with capitals alone are probably more easily read than those made with small letters. In making the chart it is important to have a table of sufficient size for the paper. A little figuring should be done to determine how the data can best be arranged on the chart and the size of letters to use, before the lettering is started. A straight-edge as long as the chart, and an ordinary foot rule are needed. When the distance of the first line from the top of the paper has been decided, a pencil line should be drawn for the top of the letters using the straight-edge, and then another line should be drawn for the bottom of the letters. Similar pencil guide lines should be made for each line of data. With a little care about spacing, letters and figures can then be brushed in quite rapidly. The pencil guide lines will not show to any extent. The size of the letters will depend somewhat on the material to be placed on the chart and upon the distance that the chart will be from the group. It must be borne in mind that a chart to be effective must be easily read. Two-inch letters are good for the body of a chart under average evening school conditions. The letters in head-

Each chart should have on it the source of the data. This may be put in small letters in a lower corner and should give not only the name of the publication but also the page on which the data may be found. The lesson number and the chart number should be put in small, inconspicuous letters in the other lower corner. This is important for filing the chart and in locating it for future use.

In making use of charts in evening school work the teacher should always keep in mind that the chart is only a means to an end and not an end in itself. It has been well said that the chart should be talked to and not from. The worthwhile chart for evening school work is not one containing a series of statements to remind the teacher of the points he wishes to make. The farmer's evening school is a conference group, and the conference method is to set up the problem, collect experiences, and then evaluate experiences in order that conclusions may be reached by individual members of the group. As an aid in evaluating experiences and in arriving at conclusions data are presented in the form of charts. They should not be shown until after the farmers have given their experiences and discussed the problems at some length.

Evening School Proves Worth of Vocational Agriculture

GEORGE THATCHER,
Instructor in Vocational Agriculture,
Fort Laramie, Wyoming

THERE never was a time when it was more important and necessary that teachers of vocational agriculture conduct evening school work.

First, because the efficiency of the farmer must be augmented in every possible way to pull thru the present crisis. This needs no further argument.

Second, because the farmer is unquestionably over-burdened with taxation. Tax leagues are springing up all over the United States. When we stop to consider his predicament of paying an average of almost 30 percent of his net income for the past 10 years as taxes, we cannot but agree with him in forcibly demanding real bargains for his tax dollars.

I have had the good fortune to be a member of the local committee appointed to aid in the organizing of a county, rural taxpayers league. I have discussed taxation problems with 800 farmers during the past 90 days. I find farmers quite unanimously in favor of good education but equally agreed that they have been spending more money for schools than they could afford and they were not getting the quality and quantity of instruction which they have a right to expect. For example, I can cite instances where it is costing 900 percent more for schooling an elementary school pupil a year than it did in 1913. The thought immediately brought to mind is whether the student is getting a proportionate increase of training

Future Farmers of America

Meeting of Executive Committee of National Board of Trustees Future Farmers of America

April 7-12, Washington, D. C.

THE main purpose of the meeting of the executive committee of the National Board of Trustees, Future Farmers of America, which is held between the national conventions, is to lay plans for the next national convention of Future Farmers of America and also to attend to business which requires the action of the board of trustees during the interval between these national conventions.

Due to the fact that this was the George Washington Bicentennial Year, arrangements were made to visit Mount Vernon and place a wreath at the tomb of George Washington in the name of the Future Farmers of America and to have those present attend services at Christ's Church in Alexandria, Virginia, where they sat in George Washington's pew during the service.

This meeting was also planned at a time when the national officers could make an appearance over the radio and thus participate in the National F. F. A. radio program.

Altho the boys worked steadily and tended to business like real veterans, time was allowed for them to see Washington and view the many historic sights as indicated on the program.

Program

THURSDAY, APRIL 7

9:00 a. m.—Opening business session.
1:30 p. m.—Pilgrimage to Mount Vernon to place wreath at the tomb of George Washington.
6:30 p. m.—Dinner at home of the Executive Secretary.

FRIDAY, APRIL 8

9:00 a. m.—Business session.
12:30 p. m.—Visit to the White House to meet President Hoover.
1:30 p. m.—Business session.
7:00 p. m.—Business session.

SATURDAY, APRIL 9

9:00 a. m.—Business session.
10:00 a. m.—Showing of film of "Fourth National Convention of Future Farmers of America."
10:30 a. m.—Business session (continued).
1:30 p. m.—Business session.

SUNDAY, APRIL 10

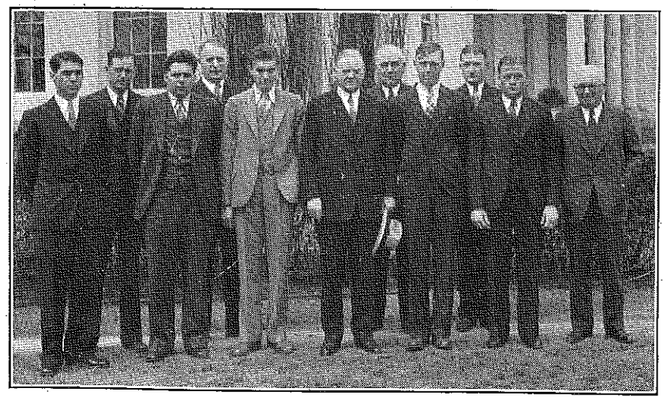
11:00 a. m.—Attend services at Christ Church, Alexandria, Virginia, and sit in George Washington's pew.
2:00 p. m.—Special session.

MONDAY, APRIL 11

9:00 a. m.—Business session.
12:30 p. m.—Broadcast program from Station WRC of NBC network.
3:00 p. m.—Attend ball game.
7:00 p. m.—Business session.

TUESDAY, APRIL 11

9:00 a. m.—Closing business session.
11:00 a. m.—Tour of Washington: Visit Smithsonian Institute, Museum of Natural History, Washington Monument, Capitol Building, Congress, Supreme Court, Department of Agriculture, Library of Congress.



National F. F. A. Officers Make Pilgrimage to Washington's Tomb

KENNETH PETTIBONE,
National President, Future Farmers of America

ON THE afternoon of April 7, the session of the executive committee of the National Board of Trustees of the Future Farmers of America was suspended long enough to allow the members to visit the old home of George Washington. The trip of 12 miles from the city of Washington to Mount Vernon was made by automobile.

Major Dodd, superintendent of the estate, very kindly assigned Mr. Harold Abbott, one of the staff, as our guide. The special mission of the group was to pay tribute to General Washington by the placing of a wreath at the tomb. This was done in the name of the national organization of Future Farmers of America.

The remainder of the afternoon was spent in viewing the estate. Mr. Abbott was a very considerate guide. He took special care in showing us the gardens, the barn and stables, the plant solarium, and the various small fields near the mansion. Some of the features about the estate are in keeping with modern ideas altho they were placed there by Washington 150 years ago.

The mansion home is a monument in itself. The design of this beautiful structure has been a model for both architect and artist, and indeed a worthy one. Many of the original furnishings are preserved in the rooms of the mansion along with various restorations.

The unit idea is found in the arrangement of the outbuildings. The kitchens, servants' quarters, and laundry are small structures separated from the mansion. Included in the rest of the farmstead group, is the schoolhouse where the Custis children were tutored, the carpenter shop, the garden house, the carriage house, the greenhouse, the seed houses, and the barn.

The brick barn, the oldest building on the estate, has a stone masonry floor

be fed directly from the mow. A complete system for draining and ventilating the building was includued in its construction.

The gardens are examples of careful studying and planning. The kitchen garden, as it was called by General Washington, is a small tract surrounded by a stone wall. It contains fig and quince trees and plots for various table vegetables.

The flower gardens, also enclosed by a stone wall, contain many sorts of shrubs and flowers. The perennials were planted in formal manner, presenting an array of varied designs. The whole estate reflects landscaping and architecture of the highest order.

The original estate consisted of over 8,000 acres, but the part held at present is only about 450 acres centering around the plantation buildings. Some of the fixtures about the estate are replicas, as near as possible, of the original, replaced by various organizations. We as the Future Farmers of America should give our sincere gratitude to these patriotic bodies who have saved and preserved the old home of the man whom our organization patronizes. To see Mount Vernon is to know the true Washington. "George Washington was a soldier, a patriot, and the 'Father of Our Country,' but he was a farmer (and a home lover) first, last, and all the time."

For the most of us, this is the only great, nation-wide celebration commemorating the birth of George Washington that we shall ever see. However, let us hope that when the three hundredth birthday of Washington is celebrated by our nation, that the Future Farmers of America may pay the tribute due this great "American Farmer."

Those in the party visiting Mount Vernon were Dr. C. H. Lane, adviser of the National Organization of Future Farmers of America; Messrs. Bryan, Hart, and Ganz, vice-presidents; Henry Groseclose, treasurer; Oscar Clauser, student secretary; W. A. Ross, executive secretary; and Kenneth Pettibone, president.

Interesting Book

The Green Hand, by Paul W. Chapman; J. B. Lippincott & Company, pp. 230; price, $1.50. A delightful treatise of the F. F. A. in a southern setting. Fred Dale, the boy hero, and Walter Langford, the inspiring young teacher of vocational agriculture, have their counterparts in every state in the Union. A boy who had lost step with the educational system, an understanding instructor with a clear vision of his job, a local Future Farmer chapter and its program make up this interesting story of the re-direction of the energies of a worthwhile farm boy. Real personages are found in this story: Senator Arthur Capper; Henry Groseclose; Secretary of Agriculture Hyde; and John L. Butts, vocational agriculture instructor of Miami. These people played the roles in real life which are assigned to them in this story. The story is full of realism, action, and holds a strong appeal for any boy. Strongly recommend that every teacher of vocational agriculture read the story and give it wide distribu-

Co-operation in Action

W. C. LETH,
Instructor in Vocational Agriculture,
Newberg, Oregon

CO-OPERATIVE marketing has become so important that it necessarily must become a part of the instruction in vocational agriculture. This instruction should include actual practice in co-operative effort, to make for more effective learning. Many other advantages are also derived from time spent in this type of work.

In the Newberg chapter of Future Farmers of America we have organized two types of co-operative practice, in buying and in selling. Most important from the selling standpoint is our purebred swine association composed of students raising purebred Duroc-Jerseys. Thru this organization the idea of co-operative buying was developed when the students learned that they could buy such concentrates as tankage, oil-meal, and dried milk much cheaper in larger lots. Consequently, the same organization thru its officers bought these feeds and re-sold them in smaller lots to its members at a very good saving. In addition to this the boys decided that expensive mineral feeds were unnecessary when they found a formula in an experiment station bulletin that could be used in making a much cheaper mixture. Enough materials were purchased and mixed by these students to satisfy their needs, at a cost of less than 4 cents a pound when many had been paying as much as 15 cents.

Perhaps all of the co-operative activity in this chapter is the outgrowth of the co-operative swine marketing association. However, purebred swine and proper use of minerals and concentrates in rations did not yet fill all of the necessities of the students. More and cheaper feed was needed, so the chapter decided to emphasize the growing of corn where possible. Over twenty Future Farmers formed a seed-corn buying pool and purchased about 700 pounds of the best seed they could find in the state. This seed cost 8 cents per pound when finally distributed, but the investment was well made. With a quick-maturing type of corn being brought into the community, an immediate market for such seed was to be had. The only discouragement came when the students were completely sold out of hill-selected seed and had to pass up orders for several hundred pounds to local farmers and other F. F. A. chapters.

Many attainments of this group of boys are worth mentioning because of connection with the co-operative work done. From the very beginning, co-operative work of any kind here has meant the handling of only high-quality produce. Only purebred Duroc Jersey swine could be produced and sold by members, and as a direct result that type of swine now predominates in this community, displacing the low-quality, and off-type animals formerly used. These students demonstrated that quality livestock pays.

When it was decided to grow more corn and the idea of a pool was developed, the experience of handling quality swine was recalled, and the boys decided to get the best seed corn available. As a result many farmers have changed seed to departments 200 miles away.

Feeling that the best road to success is the production of quality goods and then standing behind them has helped the Newberg boys. In selling swine or seed corn their motto has been "high quality and satisfaction or your money back."

The success of this work can easily be shown when the sales reports and show records are viewed.

These boys have sold breeding pigs all over the Willamette Valley, and one boar to a department over 200 miles away. They have sold large orders to swine raisers for breeding purposes and have always refused to sell any animals for breeding purposes that were not of high quality and of desirable type. Because of the outstanding work done with purebred swine, many departments have purchased breeding stock from these co-operative breeders.

At the fairs last fall the swine shown by the members were very well recognized as shown by the fact that they won prizes at three county fairs, the state fair, and the Pacific International Livestock Exposition, as follows: 2 grand championships, 1 senior championship, 5 junior championships, 18 firsts, 7 seconds, 9 thirds, 5 fourths, and 4 fifths—all in open competition. In the vocational sections and in the local fair practically all of the Duroc Jersey prizes were won by these students.

In the local fair last fall the first seven placings in yellow dent corn were given to corn grown from the seed brought in by the students in the corn pool.

Such success is most gratifying and can be attributed to the interest taken in the co-operative enterprises sponsored in the vocational department. Inspiration has been planted in the hearts of these boys not only for co-operative buying and selling organizations but for the production of worthwhile crops and livestock and the use of the improved practices so necessary in getting these results. They have learned the value of advertising, business methods, and up-to-date practices.

Thru the example set by the Newberg department, nearly every chapter in the state is now engaged in or planning some type of co-operative effort as a means in making their work more effective.

Maryland Association of F. F. A. Meet at College Park

TWO hundred Future Farmers of America attended Vocational Day at the University of Maryland on April 30.

The luncheon meeting was addressed by Dr. J. E. Metzger, assistant director of the experiment station; Mr. W. A. Ross, national executive secretary of F. F. A.; and Merle Ifert, of Middletown High School, winner in the public speaking contest. A unique feature was music by the F. F. A. band from Frederick County, directed by Mr. C. C. T. Stull, supervisor of music.

Cash prizes of $10, $7.50, and $5 were awarded in the public speaking contest, by Dr. W. B. Kemp, assistant dean of the agricultural college.

More than 100 boys entered the poultry judging contest, held under the im-

at the university. Prizes of $10, $7.50, and $5 were awarded.

The exercises of the day were under the direction of Dr. H. F. Cotterman, representing the University of Maryland; J. Homer Remsberg, president of the Maryland Agricultural Teachers' Association; Gordon Umstead, president of the Maryland Association of F. F. A.; and J. D. Blackwell, representing the state department of education.

Books Books

Moon Valley. John F. Case, the author of Tom of Peace Valley, has brought out another book dealing with vocational agriculture. The story relates the experiences of Tom Woodson, a young agricultural college graduate who returns to his native region as the teacher of vocational agriculture and principal in a newly formed consolidated school. He comes in contact with hostile mountaineers and rebellious students. School factions develop, and hard feelings result in the burning of the schoolhouse. By courage and force of personality Tom succeeds in having the school rebuilt and in achieving unity of purpose and thought among his people. Achievements of the agriculture pupils in project work, stories of hard-fought athletic contests, and a thrilling description of the winning of a sweetheart by the teacher are told with the usual fine style of an accomplished writer.

Here is a book that will fire the ambition of farm youth and show some of the possibilities of vocational teaching in agriculture and the organization of the Future Farmers of America.

The publisher is J. B. Lippincott, Chicago or Philadelphia. The price is $1.50 with quantity order discounts.—H. O. Sampson.

Mechanical Training, by Boss-Dent-White; published by Bruce Publishing Company; 280 pp., 273 illustrations; price, $3; beautifully presented in large clear text, fine book paper, and bound in cloth. The authors, recognized authorities in their field, present in clear fashion 14 phases of mechanical training in a most attractive style. The photographs are unique and clear. The diagrams and illustrations present a minimum of detail in an attractive way.

The exercises presented in the different phases of shop have been carefully selected and are offered in a workmanlike manner. The technique appeals both to the mechanic and to the school man, as desirable teaching problems.

Because of its comprehensive character this book approaches a text for the general shop. Because of its clear directions, diagrams, photographs, and so forth, it is at once a manual of the best technique to be used in a school shop in any particular field. It is evident that every exercise offered has been thoroly tested out in school work, and this book in the hands of the vocational teacher and his pupils is bound to stimulate a high level of interest in all phases of general shop.

This text is at once a handy man's handbook, a text, and a manual com-

Ten-Year Service Key

(Continued from page 5)

teacher trainers, state supervisors, and our Federal Board workers. If any state wishes to honor Dr. Lane and his agents, they have that privilege.

A sample key has been submitted to Vice-President Fife and the chairman of the committee, and both have expressed themselves as pleased with the design and workmanship. Agricultural workers who are interested in obtaining a key should correspond with their state supervisor of agricultural education.

The matter of the "certificate" for 10-year workers is still pending. A report will be made later.

Boy's Project Becomes the Major Farm Enterprise

(Continued from page 7)

There is an active demand in this section for fast grown, soft meat chickens. Forrest has catered to this demand from the start. Each year he tries to better his previous record in growing the flock rapidly.

Last year the bulk of his 5,000 chicks were hatched April 4; by the last of July when the demand for soft roasters was keen, he sold the bulk of the flock at an average weight of 7½ pounds each, receiving a premium of 2 cents a pound over the prevailing market quotations.

For some years he has devoted his full time to the business he started in high school. The past year the poultry enterprise constituted the chief farm enterprise. Fields which formerly grew vegetables were used for range or for growing feed.

Forrest's father is gratified with his son's success and interest; he says that poultry is now paying the bills and yielding a profit even at present prices.

Daylight Pictures

(Continued from page 9)

or 6 inches may be secured from the manufacturer of your machine.

As a screen, we recommend a buff colored wall or, simpler still, use a piece of ordinary brown wrapping paper placed on the wall with thumb tacks.

In this procedure you will have both light and fresh air in the classroom, as there will be no need to pull the shades or close the windows. This should make the teaching situation better by providing the proper environment for study and by eliminating the factors that tend to promote drowsiness, restlessness, or disciplinary problems.

There is an additional factor also in that it provides the opportunity to turn at any moment to the machine and show a picture to illustrate a particular point in the development of the lesson. By such procedure the picture would be shown definitely as illustrative material and the tendency to run a "picture show" would be lessened.

Teachers could be prepared for such illustrating by having available a number of pieces of ground glass the size of the usual slide, on which they could make drawings, quote data, make graphs, and so forth. These can be made by writing on the side that has been ground with an ordinary lead pencil,

may be stored for future use, the teacher building his own set of slides, with local data and illustrations, to supplement those slides he secures from other sources for temporary use.

Evening School Proves Worth of Vocational Agriculture

(Continued from page 13)

I know that farmers are literally forced to wield a cleaver on all their tax expenditures. Vocational agriculture must expect to be put on the bargain counter along with the other school departments to sell on merit alone. The signs of value will have to appear right on the surface. Evening school work will produce more actual as well as visible worth than any other part of vocational agriculture. I can give concrete examples to prove this but you need only to consult your neighbor vocational agriculture instructor who has been conducting evening schools, to find plenty of backing for almost any of these statements.

I might add that it took a lot of pressure from the state supervisor to get me to attempt this kind of work some six years ago. It is not easy, but any well-qualified vocational agriculture teacher can, with study and work, become proficient at it.

More Books

Farm Practice for Vocational Agricultural Boys—A Message to Parents, is an attractive 10-page booklet written by H. O. Sampson, state supervisor of agricultural education, State College of Agriculture, New Brunswick, New Jersey. The booklet clears up for parents many questions about the boy's taking vocational agriculture. Almost any department of vocational agriculture might profit by such a message in the hands of the parents.

Marketing Agricultural Products, Clark & Weld, published by The Macmillan Company, pp. 665, price $4.25. A clear, thoro, scholarly treatment of one of the most important phases of the business of agriculture. "Altho the fundamentals have not changed, there have been many developments of importance in the field of marketing during the past 15 years . . . Most of the changes that have taken place mark real improvements in the efficiency of the marketing system . . . On the whole the marketing machinery of the country is fundamentally sound and generally efficient; and progress comes, and will come in the future, not from revolutionary changes, but from the gradual improvement of our present system." This statement briefly gives the point of view of the authors. This book is too advanced for high school pupils, but should find a place in the reference library of every agriculture department. Especially helpful to teachers in dealing with fundamentals of marketing whether in connection with the day school, part-time, or evening school.—A. P. D.

Mr. Wayne Dinsmore, secretary of the Horse Association of America, Union Stock Yards, Chicago, has several ex-