

# Agricultural Education



Activity With Results by Pupils in Vocational  
Agriculture at Cairo, West Virginia

(See page 116)

*"The best way to learn anything which has to be done after it is learned is always to be a-doing it while we are learning."—Aristotle*

# EDITORIAL COMMENT

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## THE WILL TO DO

PROBLEMS in supervised record keeping, like the poor, we have always with us. But problems are stimulating and desirable, provided they are recognized, analyzed, attacked, and solved. It is not always necessary even to solve them; that is, completely. The important thing is to make some progress, to feel that we are not standing still. "A man's reach must exceed his grasp."

While it is evident that some progress has been made in the development of suitable record books or forms, it is equally evident that our greatest advance has not been made in this connection. A study of farm management records and supervised practice record books of fifteen to twenty states will reveal that no two are the same, altho most of them have many fundamental points in common. We have found that no refinement or improvement of record forms will insure perfect records. Again, we have recognized the need for more class time to teach the principles of record keeping and such use of time has undoubtedly been well justified. It is another mark of progress.

The late A. P. Williams stated that "One of the chief problems of the teacher is to develop the habit of record keeping on the part of the boy." And back of this habit must be a desire—a will to do. Might we not spend a little more time on the "soul and spirit" of record keeping after satisfying ourselves that the mechanics have been mastered? Good records—records that are complete, accurate, legible, and usable—must result from a desire for them on the part of the boy because he has seen past the maze of details, and sometimes drudgery, and caught a vision of the practical uses to which they may be put. We can never expect to reach our goal as long as the desire exists only on the part of the teacher. The answers to these two questions may determine in a large measure whether you have shifted this urge to the boy: Does the boy have a well-developed habit or record keeping? Does he keep them because a desire has grown out of a thoro understanding and appreciation, which, in turn, has developed from the practical use of records in improving a farming enterprise or business?—H. W. S.

## FINANCING THE FARM BUSINESS

ONE of the most efficient Government agencies serving agriculture is the recently established Farm Credit Administration. All the Federal agencies and functions dealing with credit for farmers were consolidated into the Farm Credit Administration by President Roosevelt's executive

order of May 27, 1933. The present organization provides a complete and co-ordinated credit system for farmers. Scarcely any agency of Government in our time has met so effectively and so quickly the needs of farmers as this new service under the leadership of Governor William I. Myers.

Early in this new program it became apparent that some adequate system should be devised to make it possible for eligible young farmers to become owners. The recently approved Farm Credit Act of 1935 holds out a new opportunity to young men and tenants in acquiring a farm of their own. Land Bank Commissioners are now permitted to loan funds up to 75 percent of the appraised normal value of the property for the purpose of buying farms. The maximum loan to any buyer is \$7,500. Purchasing terms are being made on liberal bases. A feature of the plan which makes these purchase loans attractive at this time is the exceedingly low rate of interest which has been set at 4 percent a year. This rate applies for the entire duration of the loan. Only one application is necessary for obtaining both a land bank and a commissioners loan for purchasing a farm or for refinancing farm debts.

From the standpoint of vocational education in agriculture the farm credit facilities and the principles underlying sound financing of the farm business should be made an integral part of the courses of study of every agricultural school in the United States. It is difficult to over-estimate the significance of this national service. Reduced to simplest terms the Credit Administration stands as an intermediate link between the money markets of the world and the needs of farmers. Thoughtful guidance on the part of teachers of agriculture will provide the necessary steps in teaching both the principles and the means of proper credit use. Teachers will find valuable suggestions in the bulletin "Teaching Farm Credit" published recently by the Office of Education.—A. K. G.

## THE PROFESSION OF TEACHING

THE vocation of teaching has for a number of years been regarded by many of its followers as a stepping stone to more desirable professions. The introduction into the curriculum of vocational education, in the judgment of many, provided the opportunity for making of this phase of teaching, a vocation with a life long appeal to most of its followers.

During the past few years a large number of vocational teachers have been drawn into other fields. The records for one state show that almost half the teachers who have been employed in the past six years have left the field of vocational teaching. About 40 percent of these teachers who resigned carried with them five or more years of teaching experience in agriculture. Two-thirds of the resignations occurred during the past three years. Less than one-fourth of the teachers who resigned went directly into new governmental agencies. A large number of teachers went to existing agencies as replacements or in new positions created in the expansion of these agencies.

Three-fourths of the teachers who resigned did so because in their judgment better opportunities existed in other fields. Less than twenty percent were misfits or failures. Not all those who resigned to accept a better offer received a higher salary in their new positions. A considerable number indicated that other fields afforded a better opportunity for service and personal advancement. These data do not represent extreme situations, but are more or less typical for a number of states thruout the nation.

The success of the program in vocational education is influenced by the tenure of its teachers. This tenure is in turn governed largely by factors of security, and advancement for meritorious service. Now that the period of emergency is drawing to a close, and less frequent demands for vocational teachers will likely be made in the future, it may be desirable for those interested in the future of vocational education, to give some attention to the matter of re-establishing vocational teaching as a vocation rather than as just one more job.—R.W.R.

# Professional

## Co-operative Rural Community Educational Program

JOHN T. WHEELER, College of Education, Athens, Georgia

### Basis of the Program

BY AND large schools are traditional and conservative. Their programs of education are, therefore, cast in relatively fixed patterns. These patterns are well-known: in the elementary schools we find the three R's; in the secondary schools we find algebra, geometry, languages, history, science, and English; in the field of adult education, we find nothing.

These subjects in the traditional patterns are organized separately and logically, but withal artificially and these patterns on the whole have little to do with present-day realities of life and living. It is only fair to say, however, that the larger schools have from time to time added new elements to their curriculum. They have provided practical courses, in homemaking, agricultural, industrial, and commercial subjects. Many phases of extra-curricular activities have also been added, but none of the old has been taken away. On the whole, however, the new elements remain as unintegrated parts of the school program. They are extra. The old pattern remains essentially unchanged. These extra units are still fads but they are becoming recognized as vital factors in the school's offerings.

John Dewey recently said: "Unless and until we permit or rather encourage the schools to abandon certain traditions which have no relation to existing social realities, our thinking in matters of the greatest public concern will continue to be thoro stupid and our (educational) leaders will be such only in the sense in which the blind lead the blind. One of the functions of education, he pointed out, 'is to equip individuals to take an active concern in bettering conditions.'" He said: "Our schools have failed notably and lamentably in that regard."

To break with tradition and make educational programs that deal with existing needs of children, youth and adults is the educational problem of the hour. This is the problem that is calling forth the vigorous movements for curriculum revision in our schools and colleges everywhere. Can we meet the challenge and build educational programs in terms of these needs? We have been hesitating for a long, long time. We



J. T. Wheeler

have not been sure of our ground or of the signs on the educational guideposts, but the time has come for choosing the way. We can at least accept the spirit of the times and do some experimenting. But even in experimentation we need guides. Experimentation cannot be just haphazard trial and error effort, if we expect to know what we are doing or how to measure our accomplishments or failures.

Let us see what guides we have to point the way to a better balanced program in terms of human needs. Without going into any lengthy discussion of how to determine guides to educational needs, let me call to your attention the fact that we have some criteria which will serve very well as guides at this point. For instance, the "Cardinal Principles of Secondary Education" or some modifications of them have recently found approval from eminent sociologists as helpful means in evaluating our educational programs in terms of human needs. Formulated as questions they might be stated as follows:

1. Do the offerings of our community educational program directly advance the health conditions in the homes, and in the community?
2. Do the offerings of our community educational program provide adequately for wholesome ways of participating in leisure time or recreational activities in the homes, the community, and the school?
3. Do the offerings of the community educational program enhance the economic understanding and abilities of the people of the community?
4. Do the offerings of our community educational program forward the religious life of the community?
5. Do the offerings of our community educational program make for better social intercourse and adjustment of individuals and groups?
6. Do the offerings of our community educational program make for more beauty in our homes and community surroundings?
7. Do the offerings of our community educational program make for better government in the home, in the county, the state, and the nation?
8. Do the offerings of our community educational program make for emotional satisfactions of the growing individual by increasing the range and quality of curiosity?

### Co-operating Agencies

The traditional school, standing as it does, in the midst of the rapidly shifting social and economic scene today, finds

itself surrounded by many and diverse organizations and agencies which have come into being to meet some particular educational need or needs that it has failed to provide. For instance, we have several organizations and agencies dealing directly with rural community life and the problems of farming and the farm home: the agricultural colleges; the agricultural extension service; the agencies for vocational education; the state department of health; the agricultural experiment stations; the Emergency Relief Educational programs; and the Agricultural Adjustment Administration's educational work, and so on. There are, of course, many other agencies and organizations that aim to meet other needs in our rural communities: the Scout and Camp Fire organizations, the Young Men's Christian Association, and the like.

Many of these are public organizations and state-wide or nation-wide in scope. Some are not public organizations in the sense that they are tax supported. Others are private and commercial agencies. Most of them, however, have significant educative implications and they all wish to help the school in meeting the present-day problems that are confronting the people of our communities, state, and nation.

In order to become effective in the lives of our people in any large degree, these organizations realize that they must function thru and in local communities where people live and work together. In other words, they realize that any educational agency can serve best only when the folks in our local communities have the opportunity to avail themselves of the services rendered by that agency. Further than this, it is generally recognized by all educational agencies that the outstanding center of common interest in our rural community life about which an effective program of education can be built to meet the needs of our people, is the local school. I feel, therefore, that it is squarely up to the school to break with tradition and build community educational programs that meet the needs of its people. These programs must deal with social realities: the realities in our homes, our neighborhoods, our vocations, our movies, and all the rest of our social institutions.

When the school has formulated an educational program large enough to deal with the needs of its people, children, youth, and adults, in terms of these realities—it may take any one of four attitudes towards the organizations and agencies outside the school: (1) The school may ignore them; (2) the school may simply tolerate them; (3) the school



may oppose them; or (4) the school may plan to use them in developing and carrying out its community educational program.

Only when the school feels that its program is sufficient to meet all the needs of all its people—children, youth, and adults can it afford to ignore the educational agencies other than the school. The attitude of tolerance on the part of the school implies that the school sees in the activities of these other organizations and agencies, work of little merit or value, measured in terms of its (traditional) program. When the school opposes the educational efforts of other organizations, it assumes that it is the one and only institution of education and, therefore, can accept no help from other sources.

### The Broader View

Educators, however, are now becoming fully aware that education goes on outside the school as well as in the school. They are aware that education goes on in the home, in the neighborhood and in the activities of farming and other vocations as well as in the school. They realize that education does not stop with vacation periods, or after school hours each day. They realize that education goes on all the time and at all ages from the cradle to the grave. In other words, educators are beginning to realize that in order to develop a community program of education, they must deal with the whole educational problem in its community setting and not just with traditional subject matter for the in-school hours of children and youth from six to sixteen.

As a matter of fact, the traditional school takes only about one-twelfth of the time of those who regularly attend it. The rest of the time even of school children is spent in activities in the home, on the farm, at the church, or in diverse leisure time activities in the neighborhood and community. The total problem of education on the other hand involves all the needs of all the people in all of the activities of life, all of the time, out of school as well as in school. It behooves the local school, therefore, to set up an educational program that will aid the home, the neighborhood, the vocations in which people engage, and other institutions to make better educational contributions than they now make. In short the school must rediscover the educational opportunities and values inherent in social institutions other than the school itself.

When the school begins to set up community educational programs that recognize the whole educational problem in terms of the needs of all its people, then the school can intelligently use the services of our public and semi-public educational agencies in making direct contributions to these programs. There is a trend in America today toward living together and working together for the common good. The attitude of the school, therefore, should be not to ignore or oppose the educational efforts of other organizations and agencies, but rather to use them in a comprehensive co-operative plan for developing community educational programs that will meet all the needs of all the people not only now, but all the time.

When there are many organizations

(public, semi-public and private) bidding for a place in the community educational program, some care and discretion should be exercised in selecting the ones that best contribute to the community educational program at a given time. The following guiding principles in this connection can be easily stated in terms of the "educational needs":

1. What the organization or agency has to offer must meet one or more of the recognized educational needs—health needs, leisure time needs, economic needs, and intellectual needs, etc., etc., of a group of children, youth or adults in the community, before the school should co-operate with it.

2. The offerings of the agency in question should not duplicate what the school is doing or can well do without its aid.

3. In carrying out the co-operative enterprise with any agency, an undue additional burden should not be placed upon the school staff. (This may necessitate leaving off something the school is now doing.)

4. Is new working personnel furnished by the organization that can be used in carrying out the co-operative program?

5. Is the organization or agency in question trying to find ways of meeting the needs of the community or is it simply using the school to forward its own ends?

### External Versus Internal Pressure

School communities in the south are quite well defined areas. Some are large; some are small; some are farming communities; some are urban; some are village communities comprising both rural and urban elements. Each of these communities, however, has the problem of setting up its educational program to meet the needs of its people, whatever those needs may be.

Whether these community programs meet the needs of their people or not, they are like balloons. They are developed and sustained by internal pressure, and like balloons they resist pressure from without. Outside elements, by sufficient force, may make dents in the balloon's surface, but when the pressure is removed the dents are pressed back to the old form. It is the internal pressure that counts. It alone determines the size and, consequently, the lifting power of the balloon.

Likewise, any permanent improvement in the lifting power of a community educational program must be built up and sustained by internal pressure. The community must first set up its program in terms of local needs—health needs, economic needs, leisure time needs, need for the emotional satisfaction of the developing individual, and other needs.

When our educators have built into community consciousness the recognition of these human needs as a basis for educational value, they will have created the best means for generating internal pressure for developing and sustaining a community educational program. At the same time they will have discovered ways for bringing in and utilizing other organizations and agencies for carrying on the various aspects of the community educational program. In such a program outside agencies will not simply be making temporary pressure dents, but will

be contributing directly to a permanent and expanding community educational program.

### Our Cover

P. D. WICKLINE, Teacher of Agriculture, Cairo, West Virginia

Editor's Note: Three months ago a request was made thru the columns of the magazine for cover pictures and a short story of some activity showing the beginning and completed activity together with a brief description explaining the pictures. Send yours in for consideration.

THE Cairo vocational department is located in a section of West Virginia where there is an abundance of free gas. The pupils in this department have been using it successfully for the incubation and brooding of chicks. During the past three years these boys have been experimenting in equipping and heating a gas heated hotbed on the school grounds. As a result of this activity three gas heated hotbeds have been built by boys on their home farms. All have been more successful than the one at school because they were built in smaller units.

The construction and materials of the hotbed, as shown in the cover picture, are as follows:

The frame (40 feet by 6 feet) was built from 2" x 12" planks. Two six-inch well casings installed as described later. These casings were covered over, twenty-four inches deep at the gas burner end and six inches at the flue end, with stones, scrap tin and old school lockers. The floor of the bed was made from sheet metal roofing, supported every twenty-four inches with iron cross rods. All the planning for building and planting the bed was done during class time. The actual work was done outside of school hours and the boys were paid in plants for their labor.

Briefly the activity with results is as follows: In 1933, the first hotbed was equipped with pipe burners, three feet long, placed every ten feet underneath the bed. Ten thousand cabbage plants were grown during this year. Three thousand were sold at five cents per dozen, 2,500 given to VO-AG boys to pay for labor on bed, and 4,500 donated to needy families.

The next year, the entire bed was remodelled. Two six-inch well casings were donated by a member of the class. These were placed lengthwise thru the center of the bed, with one end placed eighteen inches higher than the other. A gas burner was connected at the lower end inside of each casing. At the opposite ends two-foot flues were built to draw the flames and heat thru the casings. Sweet potatoes were grown in the bed this year. Thirty-eight hundred plants were sold at twenty-five cents per hundred and 3,500 distributed to the boys for their labor.

Last year, 1935, only a minor change was made by placing the two casings nearer the outside edges of the bed. Cabbage, sweet potatoes, and tomatoes were grown during the year.

For 1936 the bed is to be used for sweet potatoes.

### Procedure for a Panel Discussion

HAROLD F. PRESBY, Teacher of Agriculture, Derry Village, New Hampshire

THE following is a summary of an article by Lillian Gray, State Teachers College, San Jose, California, appearing in the May 1935 Journal of National Education Association.

1. Word "Panel"—derived from jury term "denotes a list of persons called to serve in a judging capacity—to consider the fate of a given topic."

2. Panel came in answer to plea to make group discussions more informal and less self-conscious—as is often the case with a formal type of discussion known as the open forum.

3. Environmental set-up.

(a) Panel members to sit comfortably at table to insure informal atmosphere.

(b) Talk from sitting position.

(c) Seating arrangement important or unimportant depending upon members.

1) Dominant talkers at end of tables

2) People with opposing views rather far apart

3) Timid members near chairman—for additional moral support and encouragement

4) Women and men evenly distributed on three sides of table

5) Fourth side of table left open giving audience a view of panel members and chairman.

4. Personnel.

(a) Authorities consider 6 a minimum number to serve.

(b) Any number from 6 to 9 advisable.

(c) Four usually too few and 12 too many.

5. Qualifications of panel members.

(a) Group needed with experience in the *give and take* of the almost lost art of conversation.

(b) For stimulating and invigorating, as well as instructive discussion select panel members having:

1) Rich vocabulary

2) Wide reading

3) Broad cultural background

(c) Panels most often successful when members do not have opportunity to say one thing which they prepared in advance—instead let them draw from their experience, and speak spontaneously at the challenge of the moment's demand.

6. Procedure.

(a) Chairman introduces members of panel, with mention of professional status.

(b) Chairman states or reads question to be discussed. Controversial issues promote most interesting discussions.

(c) Helpful to have both topic and questions mimeographed for distribution to members of panel and audience.

(d) Without lengthy introductory speech by chairman the panel is declared open.

(e) Someone at table makes a remark or two—possibly definition of some word in question as stated. (Have all thinking along same line in meaning of word or question).

(f) Initial plunge does not have to be recognized by chair.

(g) Other panel members enter conversation informally. Subtract from, add to, or modify that which has been or is being said.

(h) No particular order or sequence for panel members to speak.

(i) Prolonged speeches out of order and interruptions in order.

(j) Members of panel sufficiently civilized to discuss controversial issue without allowing differences of opinion to result in personal grievances.

(k) Members should interrupt each other as naturally as in conversation.

(l) Panel represents collective thinking at its highest level.

(m) Collective thinking implies that no one go off as a separate individual on a separate tangent.

7. Functions of chairman.

(a) Introduce members.

(b) Read or state question.

(c) Informally hold panel to topic under discussion (Prevent wandering afield).

(d) See that each member speaks several times.

(e) Tactfully check those lacking "terminal facilities."

(f) Summarize discussion

1) Consensus of opinion evolved by group, rather than any conclusions or decisions.

(g) Call for questions and statements from floor.

(h) Time. One hour would be split to provide 40 minute panel discussion and 20 minutes for members of audience to round out discussion.

8. Conclusion.

The more a panel discussion resembles a brilliant, witty and lively conversation, the more successful will it be from the standpoint of fulfilling its aims and pleasing the audience.

Some panel discussion leaders or chairmen display the following statements before the audience either in chart form or on the blackboard, as a part of their

introduction of the question to be discussed by the panel. (The Editor).

### Panel Discussion

We are not trying to prove anything. We don't have to justify anything we have done or stood for.

This is not a debate; it is a discussion. We do not have to reach any conclusions.

The aim of this discussion is to stimulate thinking.

Whether we are for or against an idea, we wish to find out from its sponsor all he will tell us.

We are in search of *ideas*. The value of this discussion is to be determined by the number of *new ideas* developed.

### Rounding out the Farmer Training Program

CLARENCE L. SPULLER, Vocational Agriculture Teacher, Hagerstown, Indiana

THAT much good can be obtained from proper organization is shown by the Richmond Palladium-Item Vocational Agriculture Council. This is an organization of approximately 600 vocational agriculture students from twenty-two different vocational agriculture departments. The twenty-two departments are from five counties, three of which are in Indiana, and two in Ohio. The Richmond Palladium-Item, a large newspaper in the area, and the local teachers of vocational agriculture have the leading parts in sponsoring and supporting the organization. The council cabinet membership is made up of one vocational agriculture student from each vocational department, and his teacher, a representative from the newspaper, Professor R. W. Gregory of Purdue University, and Mr. C. S. Hutchison, assistant state supervisor of agricultural education in Ohio. Officers are elected from the student members, who do all the planning of the activities of the council for the year. The vocational teachers act in an advisory capacity only. The students take the plans made by the council and present them to their home departments for approval and use. The purpose of the organization is to teach the students "how to live" with special emphasis on recreational, social, and educational activities other than those closely identified with the economic activities presented in the classroom.

The program as set up and carried on successfully for the past two years by the council is as follows:

1. Circulating library and hobbies
2. Community improvement projects and programs
3. Community programs of educational and social entertainment
4. Field day (recreation)
5. Industrial and historical tours

The departments in each county in the council constitute a group and each group is assigned one of the five major items in the program. Their responsibility is to make plans, work out details and methods for accomplishing the objective they are assigned, and submit their plans for the consideration of the other council members and groups. The council acts on the plans by either adopting, amending or turning back to the group for reorganization. When the plan is finally adopted by the council it becomes the business of all council members and groups to participate to the

fullest of their opportunity in its activities.

The circulating library and hobby committee has prepared a list of fifty good reading books for vocational agriculture students and now is making plans for an exchange of these books between the various departments in the council. Also they are planning an annual hobby exhibit by the vocational students.

The community activities center themselves into a "Better Homes Week and Clean-Up Campaign" each spring in each vocational department area. The entire community is asked to cooperate. The success to date has been far beyond expectations.

The community entertainment committee outlined a number of activities and suggested programs for each department to follow in giving entertainments and educational programs in its local community. These have been quite helpful in providing opportunities for training in this particular field of effort.

The field day activities center themselves in the selection of athletic and demonstration teams, and of individuals for athletic contests during the summer months in each of the departments. On the annual field day the winning teams from each school or county compete for winning honors. All of the vocational students in the council area and their parents and their friends are invited to attend and take part in the day of fun. Last year more than 400 council members participated in this event.

The industrial and historical tours committee plans for an all day trip for all of the students in the area to places of interest, such as large industrial plants, historical places, and large successful farms. Last year the trip was enjoyed by a large number of students who went to Dayton, Ohio, and visited the Frigidaire Corporation, Dayton Tire and Rubber Company, and Wright Aero Field. In June of 1935 the council went on "Tour" thru the Real Silk Mills, Diamond Chain Manufacturing Company, and the Indianapolis Motor Speedway all at Indianapolis.

The Richmond newspaper and other local newspapers co-operate splendidly in giving all the publicity that they can to any event the council plans. The Palladium-Item furnishes a place for the council to meet, has entertained the group repeatedly at banquets, supplied the prizes for the field day and in numerous other instances has supported the council.

The council as set up has many advantages to the student and the teachers. A few of the important ones can be listed as:

1. Prepares a definite program with civic and social objectives for each school.
2. Activities of the group are centered in one large co-operative endeavor.
3. Ideas and methods are pooled, exchanged, and improved.
4. Teaches the planning and promoting of co-operative effort.
5. Gives the students a personal interest in planning their own activities.
6. Develops the leadership abilities of the students.
7. Makes the vocational agriculture course more comprehensive in its scope.
8. Gives an excellent opportunity for publicity of vocational agriculture work.



## Indexes, Purchasing Power and Fair Exchange Value

DR. W. F. STEWART, Ohio State University, and PROFESSOR T. L. AYRES, Formerly of Clemson Agricultural College, Now of Cotton Control Section, The Agricultural Adjustment Administration.

IT IS quite probable that there is a marked difference in the abilities of farmers at present to understand such economic terms as a price index, the purchasing power of a commodity, parity, and fair exchange value. Since farm papers and bulletins are using these terms frequently, it is believed that many farmers desire an understanding of these terms. To this end a series of elementary lessons is given for the use of teachers who may wish suggestions on a teaching procedure having such an objective. For groups not needing so elementary an approach, a selection of appropriate steps should be made.

### Developing the Ability to Understand Price Indexes and to Calculate Indexes From Crop Prices

What is the local price of tobacco? Is this a good price for the farmer? What is the price of wheat? Hogs? Corn? Is this a good price? The price of butterfat? Which of these prices is the best for the farmer?

A discussion of these questions should arouse a need for determining a period when prices were adjudged fair to everybody, both in what was sold and in what was bought, so that prices today may be compared with those of that period. Such a period is known as the "base" period, and for most commodities such a relationship was found in the period 1910-14. The average selling prices of tobacco and of selected farm products by years from 1909 have been calculated. (See Table I, upper half only.)

What was the average price of wheat during the 5-year period, 1910-14? What was the price in 1934? Was it greater or less than the average? What percent of the average was the 1934 price?

Calculation:  
 $87.2 \text{ (1934 price)} \times 100 = 99.4$   
 $87.7 \text{ (Average price, 1910-14)}$  (Percent which 1934 price is of 1910-14 price.)

What does this calculation mean to you? What name is given to this answer?

Formula:  
 $\frac{\text{Price at a given time}}{\text{Average Price During Base Period}} \times 100 = \text{Price Index}$

Give practice in calculating several indexes, and in interpreting and using them until each member is thoroly familiar with the procedure, their meaning, and their use.

What was the price index of tobacco in 1930? (Use Table I, lower half.) The price index of wheat? Which crop was relatively higher compared with 1910-14? Also corn in 1932, or hogs the same year?

Editor's Note: The following content designed for the instruction of all day, part time and evening students was prepared by the authors as a part of their organization of instructional material related to tobacco under the Production Adjustment Program, and has been distributed to all schools using the material on tobacco. Since this unit of instruction is equally appropriate in its application to other commodities it is made available to all teachers of vocational agriculture thru these columns.

Is wheat a better price today than tobacco? (The commodities and years used in the questions should be selected on the basis of their interest and importance to the group.) How can we compare prices of one commodity with prices of another?

Have articles read from current farm papers and bulletins which use specific indexes and ask the members to interpret the statements.

This discussion should bring out the need for evaluating any stated price in its relationship to other prices. An index merely states as one number the relationship between two or more numbers.

### Developing the Ability to Understand the Relationship of Prices Received by Farmers to Prices Paid (Farmer Purchasing Power) and to Calculate the Indexes of Purchasing Power

Is a farmer better off the year his tobacco sells for 15c than the year it sells for 14c? Always? If a farmer received 8c for his hogs one year, and 7.5c another year, can you be certain that he would get more out of his hogs the first year than the second?

After discussing these questions, each member should feel the need for considering selling prices in relationship to what he has to pay for things he buys in appraising his enterprise income at any time. It should be explained that it is customary to read farm conditions by combining the indexes (as calculated in the preceding lesson) of seven groups of farm commodities (47 farm crops and farm products) into one index called the "index of farm prices," and combining the indexes of eleven groups of commodities which the farmer buys into one index called the "index of prices paid by farmers." Since the derivation of these indexes involves weighted data, calculations by the group are not suggested. (Use Table II.)

What was the farm selling price index in 1921? The index of prices paid by farmers the same year? Contrast the indexes of 1932. What changes occurred in 1933? In 1934? What base period is

used in determining these indexes? Why?

"As a whole, the period from 1909 to 1914 represented one of considerable agricultural and industrial stability, with a good balance between the production and the consumption of each product, with equilibrium between the purchasing power of city and country, with well sustained industrial activity and little unemployment." (Reference 2, page 28.)

In which year was the farmer better off—in 1921, when the indexes were 125 and 152 respectively, or in 1912, when they were 100 and 100 respectively? In 1918, when the indexes were 202 and 176 respectively, or in 1912? In 1918 or in 1921?

Calculation:  $(1921) \frac{125 \times 100}{152} = 82$

$(1918) \frac{202 \times 100}{176} = 115$

What does this calculation mean to you? What name is given to this answer?

Formula:  
 $\frac{\text{Index of prices received} \times 100}{\text{Index of prices paid}} = \text{Index of purchasing power}$

Calculate the index of purchasing power for each of the years. Ask for an interpretation of each index. Compare conditions in different years.

In 1923, the purchasing power was the same as in 1915. How did conditions as indicated by the buying and selling indexes compare? In which year covered by the table were "times" the "best" for the farmer? The "worst"? Is the farmer better off this year than last?

If the income of the farmer is derived largely from any one commodity, such as tobacco or wheat, then the index of that commodity should be used as the index of what farmers sell, in place of the index used in the table which was derived from seven groups of commodities.

### Developing an Understanding of Parity and Fair Exchange Value

It is believed that the best understanding of parity and fair exchange value can be gained by directing the class thru the construction of a chart. Indexes similar to those derived in the preceding lessons will be used. The steps follow:

1. Distribute the years, 1910 to date, along the base line.
2. Distribute percents from 50 to 300 in units of 50 along the vertical border.
3. Draw a bold horizontal at the base index, or 100 percent.

- It is suggested that the class be supplied with mimeographed forms containing the three preceding steps, and that each member carry out steps 4 to 7.
4. Insert the indexes for "goods farmers buy" and connect them, forming a graph.
5. Insert the indexes for "prices for farm products" and connect them, forming a graph contrasting in color with that made in 4.
6. Label the chart and its essential parts.

7. (Insert later). In a similar manner, graph the indexes of any specific farm commodity which it may be desired to study in contrast with goods farmers buy. This is particularly desirable if the farmer's income is largely from one commodity.

The resulting graph may now be analyzed and interpreted. Caution against reading the graph obliquely rather than vertically for any given year.

At this point in particular the difficulty of the questions asked must be adjusted to the economic background of the class. The questions suggested may be too difficult for some classes.

1. In what years were the farmer's selling prices higher than his buying prices? How do you account for this relationship at that time?

In periods of rapidly rising prices, the prices of farm products tend to rise more rapidly and go higher than do prices paid by farmers.

2. Why was there a rapid decline in 1921? Why did prices received decline more than prices paid?

In periods of falling prices, prices received by farmers tend to fall more rapidly and go lower than prices paid by farmers.

3. What factors largely determine the cost of products the farmer buys?

4. How do you account for the rise of prices from 1921 to 1925? The decline from 1929 to 1932? In what year did the greatest difference occur?

5. What does "parity" mean in terms of these graphs? "Pre-war parity"? "Disparity"?

6. What is the meaning of "parity price"?

Parity price of farm goods is that price which has the same purchasing power in terms of goods that farmers buy that the price of the same volume of goods had on the average in the period 1909-1914.

7. One year a farmer sells a bushel of potatoes for \$1.00 and buys a pair of overalls for a dollar. Another year he sells a bushel of potatoes for \$2.00 and pays that amount for overalls of the same quality that were purchased the previous year. Does the farmer receive the same amount of money for a bushel of potatoes both years? Do potatoes have the same exchange value?

8. What is meant by "fair exchange value"?

Fair exchange value is the relationship existing between the purchasing power of farm goods and the purchasing power of goods farmers buy when parity prices are in effect.

9. Does a fair exchange value for the farmer imply a fair exchange value for the industrial wage-earner? Should it?

Step 7 may now be carried out and appropriate questions raised calling for analysis and interpretation.

Economic conditions can be further visualized and made clear by showing

graphs of other economic relationships of interest to the farmer. Practice by the class in making these graphs will enhance understanding. Suggested graphs include: Farm prices of Grains and Livestock; Grains and Tobacco; Wheat and Tobacco; Corn and Hogs; Dairy Products and Livestock and Grains; and Farm Wages and Taxes and Freight Rates.

References: (1) Index Numbers of Prices Received by Farmers for Farm Products, 1910-1934, as revised 1934; Bureau of Agricultural Economics, Washington, D. C.

(2) Economic Bases for the Agricultural Adjustment Act, Mordecai Ezekiel and Louis H. Bean; United States Department of Agriculture, Washington, D. C.

### IMPROVE THIS SECTION

It is one of the objectives of the staff to make the Methods Section of the magazine much better this year so that it will render a real service to the teachers of agriculture. We need the help of all workers in the field of vocational agriculture in order to do this. Teachers should submit articles on the teaching methods which they have used with their classes and which they feel have given results. Supervisors and teacher trainers can well contribute from observations made on supervisory visits to schools during the year. Send your contributions to the special editor of this section.

TABLE I

COMPARATIVE PRICES AND INDEXES OF FIRE-CURED TOBACCO AND OTHER FARM PRODUCTS (1910-14=100)

YEAR	Prices paid by farmers for items bought	Prices Received for Fire-Cured Tobacco and Other Crops and Livestock					
		Fire-Cured Tobacco	Corn	Wheat	Butterfat	Milk	Hogs
		Cents Per Lb.	Cents Per Bu.	Cents Per Bu.	Cents Per Lb.	Cents Per Cwt.	Cents Per Lb.
1919	17.9	150.7	216.3	58.3	313	13.43	
1920	10.4	61.0	182.6	55.5	342	8.91	
1921	17.2	52.7	103.0	37.0	283	8.10	
1922	16.0	75.2	90.6	35.9	252	7.41	
1923	12.7	88.5	92.6	42.2	278	6.85	
1924	14.9	105.3	124.7	39.8	249	10.15	
1925	10.2	69.9	143.7	41.9	255	11.55	
1926	7.8	75.3	121.7	41.3	250	10.28	
1927	15.1	84.9	119.0	43.7	252	8.59	
1928	14.2	84.8	99.8	45.6	255	9.28	
1929	13.2	79.8	103.4	45.2	255	8.95	
1930	8.5	59.4	67.0	34.5	230	3.78	
1931	5.1	32.1	39.0	24.8	177	3.36	
1932	6.2	31.8	37.9	17.9	131	3.73	
1933	9.1	52.2	74.1	18.8	129	7.10	
1934	11.8	84.7	87.2	22.7	152	...	
1935	...	...	...	...	...	...	
1936	...	...	...	...	...	...	
	Percent 1910-14 Average	Percent 1910-14 Average	Percent 1910-14 Average	Percent 1910-14 Average	Percent 1910-14 Average	Percent 1910-14 Average	
1919	202	258	235	245	203	175	
1920	201	150	95	207	211	191	
1921	152	248	82	117	141	158	
1922	149	230	117	109	137	141	
1923	152	183	130	105	160	155	
1924	152	214	164	141	151	139	
1925	157	147	109	163	159	142	
1926	155	112	117	138	157	140	
1927	153	217	132	135	166	141	
1928	155	204	131	113	173	142	
1929	155	190	124	117	171	142	
1930	145	122	93	76	131	128	
1931	73	50	44	94	90	52	
1932	107	89	50	63	73	47	
1933	109	131	82	84	71	52	
1934	123	170	133	99	86	85	
1935	...	...	...	...	...	...	
1936	...	...	...	...	...	...	

Tobacco Section: Agricultural Adjustment Administration. Prices are for Crop Years.

TABLE II

INDEX NUMBERS OF PRICES RECEIVED AND PRICES PAID AND RATIO OF PRICES RECEIVED TO PRICES PAID, BY YEARS 1910-14=100

Year	Prices Received by Farmers	Prices Paid by Farmers	Ratio of Prices Received to Prices Paid	Year	Prices Received by Farmers	Prices Paid by Farmers	Ratio of Prices Received to Prices Paid
1910	102	98	104	1924	143	152	94
1911	95	101	94	1925	156	157	99
1912	100	100	100	1926	145	155	94
1913	101	101	100	1927	130	153	81
1914	101	100	101	1928	149	155	96
1915	98	105	93	1929	146	153	95
1916	118	124	95	1930	126	145	87
1917	175	149	117	1931	87	124	70
1918	202	176	115	1932	65	107	61
1919	213	202	105	1933	70	109	64
1920	211	201	105	1934	90	123	73
1921	125	152	82	1935	...	...	...
1922	132	149	89	1936	...	...	...
1923	142	152	93				

Bureau of Agricultural Economics.





PART TIME

# Farmer Classes

EVENING



## Selection of Evening Class Subject Matter and Its Relation to Interest and Attendance

W. L. MOWREY, Teacher of Vocational Agriculture, Warren Township, Indianapolis, Indiana

VOCATIONAL agriculture teachers in conducting their first evening schools no doubt experience very similar reactions. These reactions may in all probability be likened unto those of a child taking his first steps. It is an adventure and there having been no past experience as a guide a few mistakes may be made. But once a successful school is completed a whole new field of service seems to present itself and we wonder that we approached the venture with apprehension. The two experiences with which I came in contact in my first school were the selection of subject matter and its relation to adult interest and attendance, and the feasibility and possibilities of co-educational attendance. The first is certainly one of the requisites of a successful evening school. The second is probably an innovation chiefly because the term adult farmer has been taken to mean men only. However, from the experience of just one evening school I am of the opinion that the scope of the service that should be rendered by the teacher of agriculture to his community may include both men and women.

### Three Essential Requisites of Organizing an Evening School

If all the requisites of organizing a successful evening school were to be simplified and combined there might yet be three of a very distinct nature. The first of these would be that of finding and presenting a subject of interest and vital importance to the community; the second, one which seems imprudent to say yet nevertheless true, that you as teacher know your subject so well in both theory and practice if possible that you really have something tangible to offer, and the third requisite would be that of using the proper methods of presentation. If these above mentioned requirements can be adequately met the average vocational teacher need not fear launching an evening school.

### Select Subject Matter of Vital Interest and Importance to Community

Many times we as teachers have specialized in some limited agricultural field either in our university training or in our practical experience. Too often we attempt to teach that subject to a community without first determining whether or not it is of vital importance to the persons who are to be our pupils.

After observing a few unsuccessful attempts of various educational agencies to start evening schools in such fields as swine production, dairy herd improvement, corn production, and farm management, all apparently vital subjects to farmers yet each attempt meeting the same disappointing, that of small at-

tendance, I have been convinced that satisfactory evening school attendance depends almost directly upon the selection of subject matter that is of prime importance to the most people in the community. Also if the subject matter can be given when it is of seasonal importance, such as fruit growing and home beautification planting presented just preceding and during the planting season, satisfactory attendance is virtually assured.

Also it is well to permit or encourage a committee or group of interested persons of the community to assist in the selection of the subject matter and the organization of the first meeting. Often the responsibility of helping secure sufficient attendance at the first meetings will be eagerly accepted by such a group.

My experience during the past year was that after I had made several surveys of the interest in such enterprises as swine production, dairy herd improvement, farm management, and care of farm machinery, and had decided that my community did not want adult education, a group of men and women came to me and asked for a series of classes in fruit production, vegetable growing, and flower and shrubbery planting. Undoubtedly no other proposition or problem could have struck such terror to one who had had his experience and training in corn, hogs, and dairy cattle. Yet here was a definite request and without doubt a vital need to be fulfilled by someone in some manner.

### Planning the Course Desired by the Community

I decided the problem must be met, so with the help of two or three of the most interested men and women of the group, the county agricultural agent, the vocational teacher training staff and members of the agricultural extension staff I outlined a series of ten meetings. The first meeting was planned to be devoted to a study of the fruit outlook, the selection of the soil and site of the farm orchard and the planting principles of home beautification. You will note that the subject matter for the first meeting was selected to interest at least three different groups of people: the commercial orchardist, of whom there were about six in the community, the farmer and his wife, interested in a farm orchard and home beautification and the suburban home owner and his wife, interested in improving their home planting. This plan was followed to a considerable extent thruout the course of the meetings. The subjects planned for the remainder of the meetings were as follows: principles of pruning; dormant sprays; propagation and selection of nursery stock; soil fertility, function and source of plant

food elements; fertilizers for fruit; comparison of high and low grade fertilizers; lime, its function and application; soil management for orchards; plant diseases; insect habits, damage and control; spray schedules for fruit trees, small fruit, trees and shrubbery; formal and rock gardens; annual and perennial flower borders; dahlia growing, and the care and maintenance of lawns.

Actual demonstrations were presented at various meetings in pruning and training young fruit trees, homemade bordeaux and limesulfur sprays, the laying out and planning of home beautification planting plans for the homes of two family groups of the class, grafting, budding and selecting nursery stock, and selecting and dividing dahlia root bulbs. In addition to the ten regularly planned meetings the class acting on its own initiative held as its closing meeting a Sunday afternoon tour to a local nursery. A guide supplied by the nursery assisted in making the tour instructive and at the end of the tour a steak and wiener roast was held in the nursery grove.

A questionnaire was handed to each person in attendance at the first meeting asking him to select from a list of topical problems those which he wished discussed and space was allotted on the mimeographed questionnaire to allow each person to add those problems in which he was especially interested and which were not already listed. At intervals of about every two meetings similar questionnaires were handed to the class. At first thought this procedure might be assumed to cause the series of meetings to become a trouble shooting course, however, it did not and I feel that I can recommend this device as a means of increasing pupil interest and furnishing the instructor with many valuable suggestions of the type of information for which adults are willing to spend their time and gasoline. One subject suggested by these questionnaires, but forced to be eliminated from the class discussions on account of the limited number of meetings, was that of rural home architecture and farm home remodeling. By this suggested topic I was led to believe that several persons desired information on how they might remodel their farm homes to fit not only certain planting plans but probably also to obtain modern conveniences. This topic may lend itself to being made a part of some future evening course in rural and suburban home improvement.

### Each Meeting Well Planned and Advertised Means Satisfactory Attendance

In addition to the questionnaire another device or method employed was to divide the time allotted to each meeting

some what equally between two or three phases of subject matter. Since the general subject of this course was fruit growing and home beautification, a part of each period was used for fruit growing discussions and the remainder being reserved for home planting and beautification problems. Realizing that the class enrollment consisted of men and women whose interests varied somewhat, an effort was made at each meeting to provide for discussion of important problems in each of at least two phases of the general course subject matter. Mimeographed outlines giving a brief summary of the discussions to be presented were provided at the beginning of each class period to each member in attendance. A blank space was provided on each mimeographed outline for class notes and it was noticed that many members took rather extensive notes during the class period.

That these mimeographed outlines were appreciated was indicated by the fact that many would ask for outlines of previous meetings from which they had been absent, and often would ask for copies for neighbors unable to attend.

An announcement on these mimeographed outlines and on the class room blackboard of the subjects to be discussed at the next two consecutive meetings I believe was valuable.

Local newspapers, store windows, public bulletin boards and local moving picture theatres may be used to acquaint the public with your meetings and the subjects to be discussed.

### Experience Is a Very Reliable Teacher

Altho this evening school was my initial experience and many of my theories were rudely disproven and others vindicated, yet I am sure that vocational teachers should take invoice of their evening school experiences, summarize them and determine whether or not certain conclusions might be drawn. From this meager experience I am convinced that the following theories have been proved to be within the realm of facts: first, that subject matter selected because it is vital to the community, and not because it necessarily was the teacher's specialized field, is the first guarantee of evening school success; second, that this subject matter should be arranged as nearly as possible in seasonal sequence and presented in well prepared programs; third, that in many communities there are quite a number of evening school subjects in which the farmer's wife is as interested as is her husband. It was my experience in a recent class that the women were as interested in fruit growing and gardening, and of course much more interested in home beautification and improvement than their husbands and exerted a rather strong influence in getting the latter to attend the meetings. Also, I believe more actual results are obtained in the latter subjects when both husband and wife are in attendance. It could easily be noticed that this co-educational plan encouraged many young or middle-aged farm couples to improve their home sites, especially the dwelling, its surroundings and plantings, thereby bringing much needed relief to the farmer's wife from the all too exaggerated situation of an expensive and too prominent barn in comparison to a bleak and neglected atmosphere about the farm dwell-

ing. As a matter of attendance, several times I noticed that in cases where other community meetings conflicted with the date of the evening class either the husband or the wife would attend evening class and the other attend the meeting in conflict. Fourth, that many suburban families in this economic period are striving to derive an income from their small tract of land with which to supplement their part time employment income. These families seemed to deeply appreciate the opportunity to attend evening classes which might be of assistance to them; and fifth, that the teacher must exercise care in being certain that he does not invite too many so-called outside persons to take charge of an entire class period. A few objections to this type of class instruction is that often these persons, no matter how sincere, do not have their talks well prepared, speak too long, and frequently do not limit their discussions to their assigned topic, but get themselves led into a discussion of topics which should be reserved for later meetings. Also employment of too many outside persons tends to diminish the community's respect for the teaching ability of the vocational instructor. This does not mean that the vocational teacher should plunge headlong into some subject for which he is not prepared

rather than get expert help from outside sources. Probably two of my best classes were conducted by local persons, a grower of dahlias, and a lady who has specialized for years in growing and selling annual and perennial flowers. Most agricultural extension men are experienced in speaking at evening schools and have well prepared lectures, limiting themselves as to subject and time.

Another and perhaps final of my conclusions is that there are many so-called little devices that may increase interest in evening school programs. I have reference to demonstrations, tours, projection pictures and particularly in the above mentioned evening course, a series of printed items of information more or less related and of seasonal sequence to the general subject matter, called "timely hints." This was a part of the mimeographed outline and contained such suggestions as how to eradicate certain noxious weeds, making compost soil, emergency spray news, household insect control, etc.

While it is not my advice and certainly not my assumption that the above personal conclusions be taken by the reader as facts yet I beg of the latter his indulgence and tolerance should I be so vain as to hope that they might be thought provoking and perhaps helpful.

## The Young Farmers' Club

W. A. ALEXANDER, Teacher of Agriculture, Bowling Green, Ohio

EIGHT years ago a group of boys long out of high school met with the vocational agriculture teacher to organize a club which was to be the nucleus for short course work. They tolerated the short course as a prerequisite for the hour of basket ball which followed the meetings. Today the club, which they named The Bowling Green Young Farmers' Club, is a substantial organization of young farmers who are not only avid students of agricultural affairs but are distinctly civic minded. Their interest in basket ball remains but is of secondary importance and the recreation hour is sometimes forgotten when the discussion is of especial interest.

Beginning with a membership of 17, the club has doubled in size. Most of the boys are high school graduates and former members of the vocational agriculture classes of the local high school, altho a few are from other school districts of the county. The majority is in the 18 to 26 age group but some of the charter members are near or above the upper figure.

It is the permanent policy of the club to study some agricultural subject each winter thru a series of 10 to 15 weekly meetings beginning November first. Farm management and agricultural economics have been the most popular subjects. The vocational agriculture instructor has charge of the course but frequently calls on others to assist.

Another feature of the year's work is a number of addresses on matters of general and civic interest by prominent persons of the community. County officials and faculty members of the local university and high school have been much in demand and have responded very generously. By this means problems of taxation and county government have been put before the group.

A committee plans the program for the entire season and it is mimeographed in the form of a small, attractive booklet of pocket size.

Last winter the club sponsored the farmers' institute, which had never been a very live affair in this community. The boys decided it needed a little "pepping up." The result was an affair which held an interest appeal for every citizen of the community, young or old.

First, there were the usual institute meetings with varied programs of education and entertainment. Second, thru the co-operation of the school authorities and faculty, a fine exhibit of school work was displayed with every grade and department represented. A third feature was a competitive exhibit of farm and home products with substantial cash prizes for the winners. And finally, a commercial exhibit by the local merchants and manufacturers, which made one think of the state fair, was staged in the school gymnasium.

The whole thing was promoted, managed and financed by The Young Farmers' Club. One method they used to raise money was to solicit farmers for corn. A committee went out in trucks asking every farmer for a basket of corn. About \$50.00 was raised in this way. The remainder of the money came from the sale of space for the commercial exhibit.

The success of this undertaking can be stated by giving the estimated attendance figures, —6,500. One of the institute speakers made a public statement to the effect that it was the largest, most diversified and best managed institute in which he had ever participated.

The club holds a banquet every spring. All speakers having part in the year's program and members of the school board are special guests of the club, and each member brings his lady, his parents or other guests. It is the one big social event of the year for the boys.

We feel that certain very definite edu-

(Continued on page 125)



# Supervised Practice



## Using Check Lists in Supervised Farm Practice Activities

DON M. ORR, Assistant Professor Agricultural Education, Stillwater, Oklahoma

THRU a series of summer conferences in Oklahoma, the teachers of agriculture determined that supervised farm practice was the weakest phase of their program. In their determination to improve supervised farm practice, one of the tangible results was the development of farm job check lists. These consist of a listing of the jobs which need to be considered in the conduct of a farm enterprise. Check lists have been developed for some six enterprises of importance in Oklahoma.



D. M. Orr

The teachers originally decided that farm job check lists, as they were called, should be used to help pupils recognize the jobs essential to the home farm business and those jobs in which they as individuals need more experience. In addition, it was felt that such lists would be of great service in acquainting the parents with the nature and purpose of supervised farm practice work. The check list for the poultry enterprise is given as an illustration.

The teachers who worked on these farm job check lists are using them in the following ways:

1. Pupils are allowed to study the check lists to help them recognize the jobs they will have to do in the conduct of their projects.
2. The pupils are allowed to study the check lists as part of their preparation for the selection of supervised farm practice activities not connected with projects.
3. A few have used the job check lists in group meetings with parents as a device to help illustrate the nature and purpose of supervised farm practice work.
4. Some teachers are using the check lists in individual conferences with parents as a device to suggest things pupils might do as a part of their supervised farm practice activities.
5. Pupils have taken the check lists home to be used as a guide by the pupils and parents in the selection of supervised farm practice activities.
6. The check lists are used also as a record of progress or achievement by pupils.

It is recognized that the use of the check lists frequently results in a tendency on the part of the pupil to select a number of miscellaneous odd jobs for his supervised farm practice activities other than his enterprises. It is evident that after the pupil and his parents have

decided what he can do, it is the responsibility of the teacher to help the pupil organize a definite farmer training program based upon the training needs of the pupil and upon the opportunities for training on the home farm.

It is necessary for the teacher to guide and direct the pupil to the point where he will study and do the jobs that provide for complete training in the solution of a real farm problem. This may be illus-

trated by the pupil who treats the poultry flock for worms. This is only a partial solution of the problem of controlling internal parasites of poultry. It may not be worth-while to give the worm treatment unless the other jobs that have a bearing on the control of internal parasites are also done. Certainly the pupil who does no more than give the worm treatment knows very little about the control of internal parasites of poultry. It is necessary to study and do a number of related or contributory jobs to have complete training in the major farm problems.

The planning of supervised farm practice activities other than projects requires some kind of notes or records. The following outline suggests a method

### FARM JOBS RELATED TO POULTRY PRODUCTION

Below is a list of jobs related to poultry production which a farm boy may do as a part of his training in vocational agriculture. A pupil is not expected to develop proficiency in doing all of these jobs in one year. The training program, however, should provide for developing the ability to do some of these jobs each year. It is reasonable to expect the pupil to be proficient in doing most of these jobs by the time he completes his work in vocational agriculture.

In Column A check the jobs in which the pupil is now proficient. In Column B check the jobs in which the pupil can have training this year. At the end of the year check in Column C the additional jobs in which the pupil has attained proficiency.

	A	B	C		A	B	C
<b>Housing</b>							
1. Repair the laying house.				39. Feed an approved ration to young growing stock.			
2. Remodel the laying house.				40. Feed an approved ration to laying flock thru summer.			
3. Repair the brooder house.				41. Feed an approved ration for winter egg production.			
4. Remodel the brooder house.				42. Supply green feed to the young stock.			
5. Build a brooder house.				43. Supply green feed to producing stock.			
<b>Provide Equipment</b>				44. Feed an approved fattening ration to non-layers.			
6. Install dropping boards.				45. Feed an approved ration to breeding stock.			
7. Install roosts.				<b>Controlling Parasites and Diseases</b>			
8. Install drinking equipment.				46. Spade or plow yards and pens.			
9. Provide approved drinking equipment in the yard.				47. Rotate yards and pens.			
10. Construct nests.				48. Clean laying house every six weeks.			
11. Install nests.				49. Disinfect the laying house.			
12. Construct broody coops.				50. Treat the house and equipment for control of mites.			
13. Construct candlers.				51. Use an approved practice for control of lice.			
14. Construct brooding coops.				52. Use an approved practice for control of fleas.			
15. Construct mash hoppers.				53. Treat for round worms.			
<b>Selection of Poultry</b>				54. Treat for tape worms.			
16. Select hens for the breeding flock.				55. Treat for pullorum.			
17. Select males.				56. Treat for roupe.			
18. Select hens for egg production.				57. Post diseased birds.			
19. Select pullets for the laying flock.				<b>Keeping Records</b>			
20. Select hens for hatching eggs and brooding chicks.				58. Record daily egg production.			
21. Select poultry for exhibition.				59. Keep records of feed allowance.			
<b>Incubation Problems</b>				60. Keep a record of feed cost.			
22. Select hatching eggs.				61. Record sales of poultry and of poultry products.			
23. Clean and disinfect incubator.				62. Record date of setting eggs.			
24. Start and regulate incubator.				63. Summarize records.			
25. Place eggs in incubator.				<b>Marketing Poultry and Poultry Products</b>			
26. Care for the incubator during the incubation period.				64. Grade eggs.			
27. Place eggs under broody hen.				65. Pack eggs in standard crates.			
28. Care for sitting hen.				66. Market friers.			
29. Candle eggs.				67. Market baby chicks.			
30. Remove hatch from incubator.				68. Market old stock.			
31. Remove hen and chicks to brooding quarters.				<b>Miscellaneous Jobs</b>			
32.				69. Caponize cockerels.			
<b>Brooding Problems</b>				70. Train birds for exhibition.			
33. Clean and disinfect the brooder house.				71. Wash birds.			
34. Prepare the brooder house to receive chicks.				72. Enter birds in shows.			
35. Keep the brooder house sanitary during brooding period.				73. Exhibit birds in shows.			
36. Care for equipment during the brooding period.				74. Select eggs for showing.			
37.				75. Show eggs.			
<b>Feeding Problems</b>							
38. Feed an approved ration to baby chicks.							

I am willing to co-operate in providing training for my son in doing the jobs checked in Column B above.

Parent

Prepared by the Department of Agricultural Education, Oklahoma A. & M. College. For sale by the College Book Store, Stillwater, Oklahoma.

of organizing the notes so that the pupil will see the relation of the jobs to be done to the solution of a major farm problem.

**Problem: Controlling Internal Parasites of Poultry.**

- Jobs to be done:
1. Clean the poultry house.
  2. Clean the equipment.
  3. Clean drinking equipment.
  4. Clean the poultry yard.
  5. Plant crops in the poultry yard.
  6. Isolate infested birds.
  7. Treat infested birds.
  8. Disinfect the house and equipment.

**Problem: Conserving and Improving the Soil.**

- Jobs to be done:
1. Run terrace lines.
  2. Construct terrace ridges.
  3. Arrange to control erosion at terrace outlets.
  4. Make disposal channels.
  5. Make checks to stop gulley erosion.
  6. Practice contour farming on crop projects.
  7. Practice strip-cropping.
  8. Plant winter legumes or some cover crop on project land.

**Problem: Keeping Feed and Production Records on Milch Cows.**

- Jobs to be done:
1. Keep accurate records of the feed mixture fed to the herd.
  2. Keep accurate records of the roughages fed the herd.
  3. Keep accurate records of the amount of concentrates fed each producing cow.
  4. Keep records as accurate as practicable on the amount of roughage fed each cow.
  5. Keep an accurate record of the milk produced by each cow one day each week.
  6. Calculate the income per month for each cow.
  7. Calculate the difference between feed cost and value of products sold for each cow.

### Individual Record for Farm Enterprise Work

NED A. HAWKS, Agriculture Teacher, Aurora, North Carolina

WHEN I came to the Aurora High School as agriculture teacher two years ago I found that the boys kept no record of their work outside of the project or improved practices which they may want to try.

Keeping this in mind and with yet no idea as to how it could be done in a suitable way, I began about the middle of the second year. With a suggestion from another teacher, I worked up the sheet shown below and mimeographed enough copies for each boy to have a sheet and myself a duplicate of his work.

In working with the boys on this I found that from year to year they tried out new practices but had no record of what they did the preceding year to keep from duplicating if they become skilled enough in that improved practice.

The boys were interested in this, and that I might know when a particular boy needed help in accomplishing a practice the following procedure was developed.

The sheet carried each boy's name and class he was in.

First he listed his supervised practice program with his major and minor enterprises, with the number of acres or head of each.

Under this each boy listed the supervised practices that he wished to carry out in connection with his projects. During the summer as he finished each improved practice he would check it off so that in visiting him I could check off my copy.

Other things boys do on the farms were included, such as, other supervised practices, which had no relation to the boys' projects. For example, pruning trees, culling laying hens, improving home grounds, feeding the work stock, etc.

After this was completed we then listed farm shop jobs that were needed on the farm, such as building hens' nests, repairing fences, building gates, etc.

We then devoted space for dates of teacher visits, and percent skilled the boy has become since the teacher's last visit.

The last topic of the sheet was "A Farm Shop." It was to be checked off if the boy had one already or when he built one.

After trying this out one summer I find that with a few changes to be made this year it is a very helpful way for checking up on the boy along with his regular project work. I can find how much time the boy spends on the farm and how much time he is devoting to his agricultural course.

By this the teacher can look over what each boy has, and go help him with a difficult job or one that he has not tried. If there are fifteen boys that have listed pruning peach trees the teacher can go see them at the proper time to prune. By this I can keep up with what each boy is to do during the summer and when would be the best time to go help him.

The following is an example of a sheet for a fourth year boy, completed up to September tenth.

INDIVIDUAL RECORD SHEET

Name of pupil: Julian Hayes  
Address: Aurora, N. C.  
Year: Fourth  
Farm Practice Program:  
Major: Corn, 4 acres  
Potatoes, 5 acres  
Minor: Soybeans, 3 acres

Supervised Practices:

1—Grow one acre soil improvement crop.	x
2—Practice crop rotation.	x
3—Better preparation of seed bed.	x
4—Field selection of seed corn.	x
5—Use of fertilizers recommended.	x
6—Use certified seed.	x
7—Use better cultivation methods.	x
8—	

Other Supervised Practices:

1—Housing the home cow.	x
2—Feeding cows, hogs, and work stock.	x
3—Culling laying hens.	x
4—Planting shrubs and trees.	x
5—Pruning orchard.	x

Farm Shop:

1—Do you have a farm shop at home?	Yes
2—Building a brooder house.	x
3—Building hen nests.	x
4—Repairing fence.	x

Dates visited: Percentage of Skill

8-14-35.	90
9-10-35.	95

G. A. SCHMIDT, Teacher Trainer, Fort Collins, Colorado

THE best teaching that can be done in any class is that which helps the members of a class to solve the problems arising in some important and worthwhile work in which they are engaged and to better do the things that confront them in such work. Teaching that renders such help is dynamic and not static or cold storage. If learning means acquiring a new, a better or an improved way of reacting or responding, then much learning takes place when the teaching helps the pupils to better do the things they need to do and will do in some way. Giving this help is real teaching because teaching means guiding, helping, and encouraging learning.

The fundamental idea emphasized in the preceding paragraph is in accord with a very sound and strictly modern philosophy of education. The following quotations substantiate this statement.

"The modern school seeks to create an environment made up of real life situations. . . . The best training results from meaningful activity growing out of pupils' needs and interests." (N.E.A. Research Bulletin) "Education is a present activity and not a product to be striven for." (Frazier and Armentrout) "The best time to learn anything is just before you have to use it. . . . Let us have, first, some real needs, then the knowledge and skills can be supplied to satisfy the need. . . . There are great advantages which occur when the teaching satisfies some real need; benefits some cherished purpose and is made use of at once and is kept alive and healthy for future use."

(Thorndike) "There is no better way to increase one's effectiveness of thinking than by facing and solving many and varied problems felt by the learner to be vital to him." (Kilpatrick) "Revamp the curriculum and method by making subject matter not something to be imposed upon the learner but rather something he is going after to help him in some worth-while activity he is engaged in. . . . The teacher's task is, first, to stimulate his pupils to engage in activities that will be highly productive of specific habits, knowledge and general patterns of conduct which he desires to engender, and second, to direct them as they endeavor to participate in these activities so that there will be a minimum of wasted effort." (Monroe—Educational Research Bulletin)

All of the foregoing is a purposeful, wordy and lengthy introduction to the main idea that the writer wishes to convey in this article; and this idea is simply this: All boys in a vocational agriculture class have many similar problems confronting them in their long-time supervised farm training programs and that teachers of vocational agriculture should give a prominent place on their class teaching schedules to help the boys solve these problems. To do so is the best teaching any teacher can do. Some of these important problems which face every boy in a real vocational agriculture class here follow:

1. Planning a supervised farm project training program.
2. Determining the supplementary farm training jobs in a farm training program.
3. Determining the important jobs or

(Continued on page 128)





## The Value of High School Vocational Agriculture to Vermont Boys

### Purposes of the Study

- (1) To find to what extent agriculture is studied in the high schools of the state.
- (2) To determine how many of the boys who have taken the agricultural course put this training to use in agricultural occupations.
- (3) To find how many boys who did not take the agricultural course would have profited by it as indicated by their out-of-school occupations.
- (4) To recognize any additional findings that appear from the data.

### Method Used

THE questionnaire is not considered a very satisfactory method of securing information when relatively few persons are concerned. However, as the teachers requested this study themselves, it seemed probable that most of them would co-operate. A statement of the purposes of the study and the information needed from each school was sent to all teachers of agriculture together with a blank on which the report was to be made.

The information requested included reports on all boys at any time enrolled in the high school classes of 1920, 1925, 1930, 1931, 1932, 1933, and 1934 as to whether or not they took the agricultural course, their present occupation (if not agricultural had they at one time been engaged in an agricultural occupation), and the number going on to an agricultural school or college. Also, for the boys in the five classes of 1930-1934 who *did* take the agricultural course, reports as to their present occupations, and, if agricultural, whether farm owners, partners, managers, renters, laborers or some other status. A few items of incidental information which seemed necessary or desirable were also requested.

### Returns

There were twenty-five high school agricultural departments in Vermont at the time this study was started. Twenty-one of these co-operated in the study and filed reports from their schools. Thus the data here presented represents 84 percent of the agricultural departments of the state. It is of interest to note that there are two types of agricultural courses taught in Vermont: the Federal aided or, so-called, Smith-Hughes course and the state aided or, so-called, general course. All of the four departments failing to reply to the questionnaire were of the general type, the Smith-Hughes school reported 100 percent.

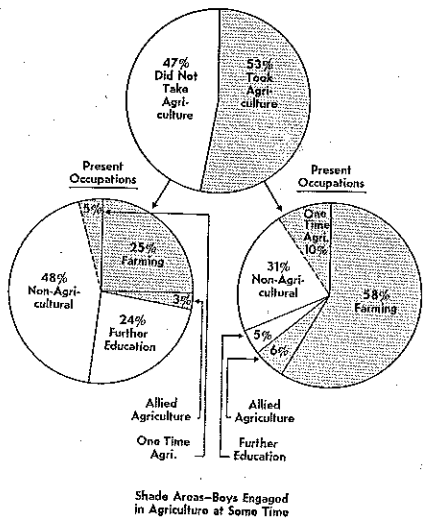
These twenty-one reports cover 118 years of agricultural instruction or 34 percent of the years of agriculture taught by these schools. Again, these reports represent 23 percent of all high schools in Vermont. Agriculture was taught in

The report of a study of the boys enrolled in Vermont high schools offering an agricultural course. Conducted by the Vermont Association of Teachers of Agriculture, Committee on Research Problems.

28 percent of the schools at the time of the study.

### Resulting Data

The accompanying graph presents the more important of these in a quickly grasped manner.



Note: See following copy for explanation of "One-Time Agri." Sections

A tabulation of the reports from each school shows that, during the seven years studied (1920, 1925, 1930-34) 443 boys, or 53 percent of the 840 included in these reports, took the agricultural course. In the fall of 1934 they were distributed according to occupations as follows: 58 percent farming, 6 percent in allied agricultural pursuits, 5 percent in some form of further education, and 31 percent in occupations other than agricultural. However, enough of this last group had previously been in agricultural work to reduce it to 21 percent who had made no direct use of their high school agricultural course. Assuming that those in further education will not enter agriculture (and this is not entirely correct) there are 74 percent of the boys trained in high school who have engaged in work along the lines of their agricultural training.

In the case of the 397 boys from these classes who did not take the agricultural course, the fall of 1934 found them occupied as follows: 25 percent farming, 3 percent in allied agricultural pursuits, 24 percent in further education, and 48 percent in non-agricultural occupations. Again 5 percent may be deducted from

this last group as those who have at some time been in agricultural work. By grouping as in the previous case, it is seen that only 33 percent have been engaged in some line of agriculture.

In developing the data on these two groups a fact not particularly sought came to light. From the above figures it will be noted that there was a marked difference in the proportion of boys following education beyond the high school. By studying just the five years 1930-34 it was found that 6 percent of the boys taking agriculture in high school were in further education. On the other hand 28 percent of the boys not taking agriculture were reported in further education.

Altho the reports were analyzed for each of the seven years separately, there appeared to be no particular trend existing.

As has been stated there are two types of agriculture in Vermont high schools. In the Smith-Hughes course the teacher is employed for twelve months and minimum requirements must be met to obtain Federal aid. The teacher of general agriculture is hired for the school year of nine months, and the amount of state aid is less than Federal, so it is natural that less should be required of the general teachers. However, it was interesting to find that 65 percent of the boys in schools teaching general agriculture took the course, while this was true of only 49 percent of the boys in the schools teaching Smith-Hughes. This may be partly explained by the fact that some general schools require agriculture of all boys. After leaving school the Smith-Hughes boys seem to follow agricultural pursuits the more. This study showed that 78 percent of all boys taking the Smith-Hughes course had followed some agricultural occupations, but only 63 percent of the general boys had done so.

### Conclusions

When over half of the boys who have the opportunity choose the agricultural course from all those offered in modern high schools they must recognize a real value in that course. But when practically three quarters of the boys who take it make definite use of the training after they leave high school they have demonstrated conclusively that this course is a most important part of their curriculum. The question might arise, would not most of those boys go to farming even if they had not taken agriculture? The fact that only a third of the boys not taking the course entered any type of agricultural work dismisses that question with a negative answer.

It is not surprising to find that one-third of the boys who have not studied agriculture do enter this field when they are living in a farming state and with very few exceptions are themselves from rural communities.

There has been considerable discussion of the two types of agriculture taught in Vermont high schools (the Smith-Hughes and the general) and

(Continued on page 128)

## Travel Allowances of Vocational Agriculture Teachers

J. A. KOVANDA, Teacher of Agriculture, Ord, Nebraska

THERE is a need for giving more emphasis to the importance of the auto as a part of the equipment in a vocational agriculture program. The use of autos by all vocational agriculture teachers for the purpose of supervising the farm projects or practice work



J. A. Kovanda

which their pupils carry out on farms, is an absolute necessity in most sections of the country. Supervised projects are required of all vocational agriculture pupils. Transportation facilities are also needed to haul groups of vocational agriculture pupils to farms where much of the regular school teaching is carried on.

That this need for autos in programs of vocational agriculture has been recognized, is suggested by the fact that boards of education are expected to pay teachers of vocational agriculture for the use of their autos in connection with their jobs. This is made clear in Part II, Section 3c, of a publication by the Federal Board for Vocational Education entitled, "Agricultural Education—Organization and Administration." It reads as follows:

*Conveyance of agriculture teacher.* Agricultural teachers have, besides the responsibility of the classroom, the responsibility of teaching each student on the farm and of leadership in farm-community enterprises. The agriculture teacher must, therefore, have the use of some sort of an adequate conveyance, such as an automobile. The cost of conveyance can not be paid in part or in whole from Federal funds; since Federal funds for agricultural education can be used only for salaries and not travel, the travel budget should be set up separately.

Neither the law establishing the Smith-Hughes work, nor the regulations of the Vocational Division of the Office of Education which directs such work, have, however, established standards for determining the amount of remuneration that would be desirable. Wide variations are known to exist in the amounts that are paid to vocational agriculture teachers for the use of their autos, and in the regulations governing such use. That such variations are not closely related to the ability of the district to pay, but other causes, would seem evident. Even in adjoining districts of the same state and under teaching conditions that are similar, a serious lack of uniformity exists in regard to remuneration to vocational agriculture teachers for the use of their autos. This has been shown by a study made by the writer, in regard to the nature and amount of remuneration received by Nebraska teachers of vocational agriculture for the use of their autos in connection with their jobs, and a comparison with other states in the north central region.

It was found that 60.5 percent of the Nebraska vocational agriculture teachers received an average mileage rate payment of 5.4 cents per mile; the other 39.5

percent of these teachers were paid an average flat allowance of \$114.63 annually in reimbursement for the use of their autos during the school term of 1934-1935. The mileage rates varied from four to eight cents per mile, and the flat allowances ranged from \$50 to \$300.

For the school terms beginning in 1928, 1929, 1930, 1931, 1932, 1933, and 1934, the average mileage payments were 8.9c, 8.6c, 8.2c, 7.5c, 6.6c, 5.8c, and 5.4c, respectively. Flat allowances for the use of autos were \$188.24, \$191.67, \$174.70, \$161.00, \$139.00, \$118.69, and \$114.63 for the same period of years. Adverse economic conditions probably caused the gradual decline in both types of remuneration for the use of autos during the period of years from 1928 to 1935 in Nebraska.

Restrictions were placed upon the amount of reimbursable travel permitted on the part of 19.7 percent of the Nebraska vocational agriculture teachers who were under the mileage rate plan. The average maximum allowance was \$154.33 where the teachers were restricted, and these teachers had to pay their own travel costs above this average amount.

In comparison with the average mileage rate of 5.4 cents per mile paid to Nebraska vocational agriculture teachers, the teachers of vocational agriculture in three other states of the north central region received rates ranging from five to seven cents per mile. State and Federal government employees working in Nebraska are given a travel allowance of five cents per mile.

In comparison with the most recent average flat allowance of \$114.63 paid for use of autos to Nebraska vocational agriculture teachers, the teachers in three states of the north central region where flat allowances are made to vocational agriculture teachers for travel, received \$233.05, \$200, and \$100, respectively.

In the other five states of the north central region no allowances were made for the use of vocational agriculture teachers' autos outside of salaries. The plan of including travel allowances with salaries is quite common, even tho it may be in violation with the Smith-Hughes law.

## A Study of the Organization of Teaching Data for Use

C. F. CLARK, Co-ordinator Research Information, State College, Mississippi

SEVERAL states have made some real progress in the supplying of factual data for use of teachers of agriculture and county demonstration agents. Mississippi has made a commendable move in appointing Mr. C. F. Clark as Co-ordinator of Research Information at the Mississippi State College, address State College, Mississippi. This is a joint project between the experiment station and the state vocational board. I trust readers of the magazine will co-operate with Mr. Clark by responding to his request promptly.—E.C.M.

Teachers of agriculture and county demonstration agents are increasingly realizing the importance of presenting facts to farmers and prospective farmers rather than giving opinions in the solution of farm problems. The greatest handicap for the worker has been that of having at hand *suitable data properly*

organized for ready use. They are too busy to do this job. They do not have the library resources at hand. It is a research job. In continuing with this task, I feel it is important to secure from teachers of agriculture, extension and experiment station workers their personal opinion and experience as to what data is needed and in what form it is most usable. Won't you please send me your expression as to any or all of the following questions? The results will be presented in this magazine.

Address replies to the writer of this article.

1. If an experiment is well planned and well conducted, under what conditions is it justifiable to "cold storage" the results? When should "negative" results be discarded?

2. Should results of research be given as recommendations, or should they be given simply as results having been obtained under stated conditions? In other words, can reliable recommendations be made under conditions different to those under which the experiment was run?

3. Should comparative monetary net gains at the time the experiment was run be published, or simply the comparative gain over the check, or both?

4. Under what conditions is it wise to publish only the average of a long-time experiment, rather than the year-by-year results?

5. In crop experiments would it be well to have a productivity index of the major crops of the community, without fertilizer, on the land on which each experiment is run?

6. What types of information with regard to conditions should be given in all experiments run on crops? On animals?

7. Should outstanding farmers and agricultural leaders be consulted in an advisory capacity in a selection of the research projects to be conducted?

8. Should research workers make an effort to apply the results of the various experiments to the entire farm management set-up of some farm of the community, or should they lend co-operation to the agriculture teachers and county agents, or should they have no part in it?

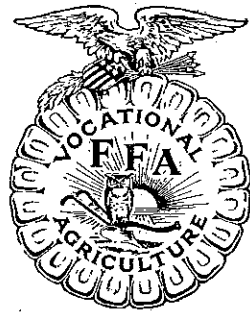
9. Should present practices of the farmers of the community be included in experiments as well as practices that may be considered above those of the farmers? For instance, should rates of fertilizer experiments include those rates practiced by farmers of the community as well as higher rates per acre?

## The Young Farmers' Club

(Continued from page 121)

cational and social benefits have come from this club. First, the members have continued their study of the vocation of farming in a systematic, organized way after leaving high school. Second, wholesome recreation has been provided. Third, they have given time and study to important civic matters, and the scope of their interests has been greatly broadened. Fourth, they have become interested in community service. Fifth, personal abilities and capacities have been developed thru the organization work and participation in discussions. And last, the general recognition accorded the club as an organization of importance and influence in the community has given its members a sense of citizenship and community responsibility.





# Future Farmers of America



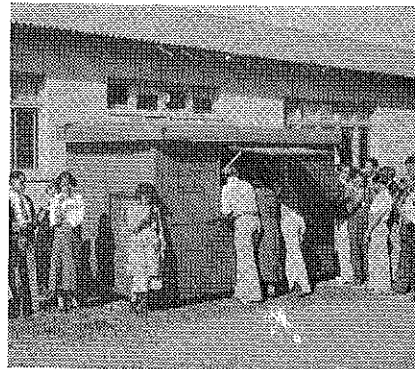
## The Lowest Future Farmer Chapter in the World

PAUL THORNTON, Adviser

THE El Centro chapter of the Future Farmers of America, located 55 feet below sea level in the Imperial Valley, California, may be down but it is not out. This is shown by some of the activities carried on by the group of forty members during the past school year.

One of these activities was the growing of one thousand palo verde trees which were used in a tree planting campaign which was organized by the local chamber of commerce in its program of beautification of the city. Four hundred and fifty of these were purchased by the chamber of commerce and presented to the city, several hundred more were secured from the chapter by the city elementary schools for use on the school grounds, and the remainder were sold to individuals. All these trees which were sold at ten cents each were planted inside the city limits, most of them being placed in the parking strip between the sidewalk and the curb. This project has created a great deal of interest in tree planting and home beautification both among the Future Farmers and the town people. This is evidenced by the fact the boys have been asked to produce a minimum of five thousand palo verde trees, umbrellas, pomegranates, and red and white oleanders which will be ready to set out in the spring of 1936.

The second community improvement project was started by Harland Daily during the summer of 1933. Starting with five pounds of very fine highly selected double-dwarf milo secured from the University of California Agricultural



Candy Stand

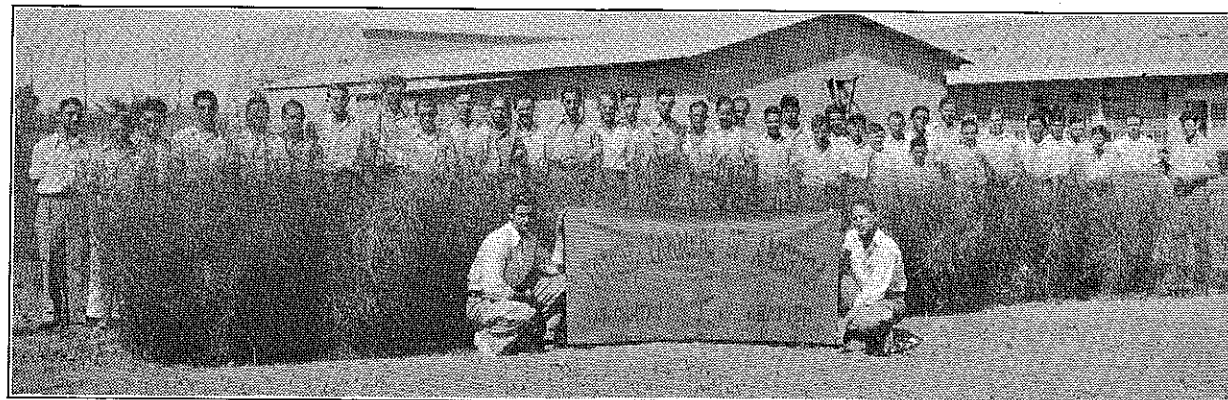
Experiment Station at Meloland, Imperial Valley, he produced one and one-half acres of unusually fine seed milo. Because of its high quality as shown by the tests for germination, purity, size, and freedom from disease this seed was declared by the University of California to be "Calapproved." Harland therefore was able to sell most of this for seed milo at the rate of \$100 per ton. The remainder he used in planting another two acres for his project. John DuBois, another Future Farmer, secured some seed from Harland which he planted as his project. These two boys and one member of the school board of trustees, Mr. J. E. Brock, put in a total of forty acres of this milo in the summer of 1934, all of which qualified as "Calapproved." The boys have had no trouble this summer in selling all their crop for five and six

cents per pound. The acreage grown by these three constituted 70 percent of all "Calapproved" double-dwarf milo grown in the state that year, all of this having been grown from Harland's original five pounds of good seed. This project has done a great deal to improve the quality of the milo grown in the El Centro section.

A Future Farmer candy stand was constructed during the fall of 1934 on an old chassis, and equipped with solid metal wheels so it can be moved daily from the shops into the school yard and even out to the athletic field where it is opened for business. It is electrically equipped so the boys are able to sell cold drinks and ice cream in addition to candy, gum, peanuts, and pies. The boys secure wonderful experience in buying for the stand and then in retailing to the other students of the school. Furthermore, this activity furnished the chapter with several hundred dollars which was used to finance other group projects.

Last fall the first Future Farmer alumni group in Southern California was organized in our high school with a membership of twenty F.F.A. graduates. These young fellows who range from eighteen to twenty-three years of age meet two nights each month for a study of local and national agricultural problems. Most of them are engaged in farming or allied occupations.

Altho we are more than 100 miles from the closest Future Farmer chapter we still take part in five or six dairy cattle and livestock judging contests each year. We show livestock, poultry, and crops at the Imperial County Fair and put on feature exhibits at this and the Los Angeles County Fair at Pomona. Two Future Farmer conventions and the Great Western Livestock Show, all held in Los Angeles, are attended by groups



Palo Verde Tree Nursery

Tune in on F. F. A. Broadcast Over N. B. C. Farm and Home  
Hour, Second Monday of Each Month

from our chapter. Each spring the group edits The Round-up which is the F.F.A. annual. Our crowning social activity of the year is the Father and Son Banquet held each May just before the close of the school year. This and many other activities are financed either entirely or in part by the profits from the Future Farmer candy stand.

## A Co-operative Potato Marketing Association

R. H. CARTER, Teacher of Agriculture,  
Fort Fairfield, Maine

AROSTOOK COUNTY, Maine, is one of the most intensively cultivated areas in the east. In recent years this section has become outstanding in potato production. Vocational agriculture boys very largely select potatoes as their major project.

After several years of marketing seed potatoes individually the members of Frontier Chapter F. F. A. of Fort Fairfield, Maine, decided to organize a co-operative selling association. This decision came because of a definite need of some way to handle the surplus seed produced. The possibilities of a co-operative association were discussed at a vacation meeting before any final move was made. It was pointed out that certain advantages would be shared by the group selling plan. Co-operative advertising and organized effort would be more economical and effective.

An organization committee was then elected to draft a suitable marketing agreement. The agreement was brought before the next meeting, discussed, changed somewhat, and subsequently accepted by the group. The same committee was then instructed to get the interested members to sign up. The boys understood that they were still reserving the right to sell their own seed but thru the association.

The following points were included in the agreement:

1. That each member should purchase one share of stock at a price of one dollar. The stock carried one vote for each holder. The payment might be made in advance or from the commission due chapter on the first sale of potatoes.
2. All shares of stock money are to be used for advertising and operating expenses.
3. Any member may be a sales agent and shall receive one-fourth of the commission for the sale.
4. Each member shall pay one cent per barrel to the association for all potatoes sold by himself or used at home. This was to pay in a measure for such services as certification, planning, advertising, financing, roguing, etc. It was decided that each member should pay one cent per barrel for all potatoes sold by the member himself.
5. The officers of the marketing association are the regular F. F. A. officers, and we elect a board of directors, seven in number, which are chosen annually by the stockholders.

6. Sales manager and advertising manager are elected by the directors. The sales manager is responsible for all association contracts, records, and commissions. The advertising manager conducts a seasonal advertising campaign by news articles and personal letters.

7. The members agree to pay the

association commission according to an accepted scale which varies according to the season and may be changed yearly. For example: This past year on sales of 1-6 barrels the commission was 15c per barrel.

24-49 barrels the commission was 8c per barrel.

Carlots 4c per barrel.

8. The association thru the sales manager receives all money for sales by its representatives, retaining commission and returning the balance to the grower.

9. Any losses sustained by the association through inferior grading, quality, condition, and loading shall be charged directly to the members at fault.

10. The co-operative has the power thru its directors to enter into contracts and agreements for the mutual benefit of the members.

When thoroly understood this marketing agreement was readily signed by the boys. A ninety percent membership convinced the directors of wholehearted support by the chapter and operations began.

A personal letter and accompanying circular telling of the seed available, including disease percentages, was mailed to all local growers. Contracts were made with chapters in other seed consuming areas by letters and circulars. All future sales were recorded by written contracts and binding deposits required on each. News articles on activities of the association were kept in the local paper. Problems in computing delivered prices for seed potatoes sold outside the state kept the members informed of the manager's work.

Each member had an opportunity to sell seed during the season and when the marketing period closed the two or three who held out for above market prices had no one to blame but themselves.

Practically all of the barrels of potatoes grown were marketed through the association. The following summary shows the distribution of the sales:

Total potatoes produced in barrels . . . . .	4383
Total potatoes used on home farms . . . . .	1151
(Marketed through the association)	
Barrels sold out of state . . . . .	789
Barrels sold locally and in state . . . . .	2443

This season we will have about the same production. By having all the plots certified under the chapter name and storing the seed which is to be shipped near the track, we hope to be more successful than last year.

As the prices for the year hit a new low, the success of the undertaking was quite remarkable. The members received from twenty-five to fifty cents more per barrel than other boys in the school. Not only did they receive more money, but the value of the co-operative as a teaching device and source of individual and group interest was immeasurably more helpful to both boys and instructor.

## Inter-Chapter Meeting

THE Bridgeville Delaware Future Farmers were hosts to the members of the Luther Burbank Chapter of the Greenwood High School and the Liberty Hyde Bailey Chapter of the Seaford High School at an inter-chapter meeting held in the evening in the Bridgeville School.

Eighty-six boys with their chapter advisers took part in the activities. Following the business meeting, the group engaged in volleyball, basketball, ping-pong, horseshoes, checkers, boxing, and peanut fighting. Events were scored on the basis of the number participating; team events counted twice as much as individual stunts. A peanut fight and scramble climaxed the activities in the gymnasium. Refreshments were served in the cafeteria.

## Custom Hatching of Chickens

EDWARD H. BROWN, Instructor,  
Norway, Maine

TO MAKE our poultry course more effective along the line of incubation our department bought a 2,016-egg Buckeye Mammoth Incubator in 1932 with money raised by the town for this purpose. This machine has been run every year since. The amount paid for the machine has been paid back to the town from the proceeds received from the hatching of eggs. This year the proceeds were used in our F.F.A. Chapter.

Due to conditions in our town we have thus far charged two cents for every egg which goes into the machine. We take orders for hatching eggs and make out a schedule so that each week we can put in 672 eggs and take off a hatch of chickens. This last year we started the incubator January 23 and ran it up to May 22, hatching about 9,500 chickens.

The work and care of the machine is done by the boys enrolled in the three agricultural classes and myself. Prior to the time we start the machine, instruction is given in securing high fertility and good hatchability from the laying stock. The procedure for holding the hatching eggs over two weeks is also studied in detail before the time for saving the eggs comes.

The machine is set on a cement foundation in our school shop under the school gymnasium. The ventilation comes across the room so that the cold air is heated before striking the top of the incubator.

The procedure for running the machine is as follows: We warm the machine two days before putting in the eggs, regulating the temperature and the humidity which we wish to maintain thruout the hatching period. The temperature is kept between 99 $\frac{1}{4}$  and 100 degrees F. and the humidity about 86 $\frac{1}{2}$  degrees, and room temperature kept at about 75 degrees.

The eggs are put on the small end on the egg trays the night before going into the machine. This allows for the inside of the egg to settle into its natural position before starting incubation. The following morning we put the eggs into the machine and after six hours, we turn them, continuing to turn them every six hours thereafter until the eighteenth day. We then candle them and put them down in the nursery trays. In the nursery trays the eggs are placed on the side and this compartment is not opened until the night of the 20th day. If the hatch seems all right, no chickens are removed until the next morning. The chicks are then taken out and put into chick boxes, 100 in a box, and are allowed to cool off gradually in the hatching room. We keep them there over the next night and the following day they



are delivered to the owner. In the case some of the boys enrolled in the poultry class have some chicks, we grade the chicks and teach the boys this all-important job before he takes them home. After the hatch is completed the nursery trays are taken out and cleaned by washing and disinfecting. The bottom of the machine is also cleaned and washed and the whole machine is disinfected each week. While the machine is being cleaned we shut off the power for about ten minutes, being sure that the hatching room temperature is about 75 degrees.

Our hatches run about 86 to 90 percent hatchability from all eggs set and we get very few malformed ones.

Our success has depended, I think, entirely on maintaining sanitary conditions in the machine; by properly keeping our machine in a 100 percent effective running condition, and maintaining a well ventilated hatching room.

## Dynamic Teaching

(Continued from page 123)

problems in a project.

4. Making a monthly lay-out or seasonal distribution of jobs or problems in a project.

5. Determining the scope of a project.

6. Determining worth-while objectives or purposes of a project.

7. Making a business agreement for a project.

8. Determining the most efficient and economical way to make a start.

9. Determining probable cost of conducting a project. (Budgeting a project)

10. Financing or making business arrangements for the project.

11. Analyzing and studying individual project job and problem.

12. Making specific job plans for individual project job and problem.

13. Determining the records to keep on a project.

14. Keeping project records.

15. Making a financial summary of a completed project.

16. Analyzing records of a completed project.

17. Writing an analytical report of a completed project.

18. Determining the continuation of a completed project.

As teachers of vocational agriculture let us do more real teaching. We have the best subject in any high school curriculum to most effectively teach in accord with the best and most modern theories of education. What we teach and how we teach should set a real example to other teachers in our schools. Let us not lose sight of the splendid opportunities we have. What I have written is in accord with a sound philosophy of vocational education as well as with general education.

## Value of High School Agriculture

(Continued from page 124)

their relative effectiveness and value. The present study indicates that both types are very well worth while to the boys enrolled. More of the boys taking the Smith-Hughes course engage in ag-

ricultural occupations after leaving school, but this is probably due, in part, to the fact that some schools teaching general agriculture require all boys to take the course whether interested in it or not. On the other hand, as the requirements imposed on the Smith-Hughes teacher are more rigid and the salaries more attractive (being hired for twelve months instead of nine), so is the work offered to students by the Smith-Hughes teacher likely to be more difficult and perhaps the results more valuable. If this be true, it would tend to weed out from the Smith-Hughes course the boys who just want to "get by" and choose the easiest courses, and it would also tend to give the boys who took the course a greater appreciation of agriculture and more desire to follow it as a life work.

It is to be hoped that a high grade course in agriculture may always be available to the farm boys of high school age. Whether this is aided by Federal or state funds or supported entirely by the local community may not always be important, but at present some outside assistance seems necessary.

## Poultry Improvement Work

W. A. WEBB, Agriculture Teacher, Bladenboro, North Carolina

AFTER completing my community survey I was disappointed to find the livestock end of the farms lagging, chiefly the poultry. Chickens, as they are locally spoken of, are kept for beauty rather than profit. It is not an uncommon sight to see birds containing every color in the rainbow. They are strictly a product of Nature caring for themselves in the best manner they can on whatever they find around the farmstead and laying only a few eggs in the spring.

After finding what confronted us, I began to talk poultry to some of my poultry minded farmers; at once they began to ask for help. The problem was to determine what could be done to promote better poultry in this community. Several of my farmers suggested organizing a community hatchery, but this would not work because there were no supply flocks.

At present there is only one blood tested state certified flock of birds in the community. We abandoned this idea, something else had to be done. After finding there was no solution at home I began to seek information elsewhere.

I left the community for several days and visited hatcheries around Petersburg, Virginia, which have been in the business for several years. I was able to secure information on caring for chicks, breeding chicks, marketing chicks, hatching chicks, marketing commercial and hatching eggs. This information I was not able to use, because we first had to establish some flocks.

I was ready to give up so I started back to my people with no direct solution to this problem. On my return trip, I stopped at state college to see if I could gain any further information. I put my problem before several men in the poultry department. After receiving all the information they could give, I outlined the following poultry improvement program which is now in operation, and we believe we are headed for better poultry

in our community. Twenty farmers who are interested in poultry are to secure three hundred chicks or more if desired which are from good flocks that have been blood tested and state certified. These chicks are to be secured between February 15 and March 15. This will give the pullets, selected from these chicks sufficient time to develop before next hatching season.

The next problem was to secure a market for our eggs. On investigation I found that a seed and feed dealer in a town fifteen miles from us was anxious to install a modern electric hatchery, but could not do so because there were no supply flocks. This concern already has incubators on hand but will not undertake operation before another season.

Still another problem—housing. I found very few brooder and laying houses. I have secured for each one of the farmers co-operating on this project a blueprint of a 500 capacity brooder house and 100 capacity laying house.

## Agricultural Guide Book

H. L. LAWRENZ, Teacher of Agriculture, Cloquet, Minnesota

IN THE Thomson Township Schools at Cloquet, Minnesota, we have an agricultural improvement committee consisting of a representative from the schools, the co-operative organizations, the private stores, dairies, and other business firms. We also invite representatives of civic organizations, including the 4-H Club, F.F.A., and Parent-Teachers' Association. This committee outlines plans for improvement of all phases of the most important agricultural enterprises in the local area and makes up the guide book. In this community, dairying, legumes, non-leguminous forage crops, potatoes, roots, pastures, small grains, fruits, gardens, home beautification, horses, dogs, sheep, farm management, home management and a community program are included in the improvement program.

A guide book is given to each member of the farmers' club, part-time class, Future Farmers of America, and the members of the vocational agricultural classes. He checks, in a place provided, the improved practices he plans to carry out. At the end of the year these books are returned to the instructor of agriculture. They are then rechecked by a committee appointed for that purpose in order to determine who has successfully accomplished the most, and consequently should receive awards.

Blank spaces are provided in the book in which the recipient is expected to add any improved practices he learned during the year that are not included in the book. It also serves as a file for the agriculture news letters which are sent out from time to time by the agricultural department.

Fame is what you have taken,  
Character's what you give;  
When to this truth you awaken,  
Then you begin to live.

—Bayard Taylor

What is a Future Farmer? A Future Farmer is a farm boy who has achieved.  
—Kansas F. F. A. News Letter.