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# Agricultural Education



*Dr. C. H. Lane  
Chief, Agricultural Education Service  
Federal Board for Vocational Education*

*Agriculture is the most ancient, the most necessary, and one of the most honorable of all human occupations. It not only serves to feed and clothe the nation, but for many generations it has produced most of the Nation's leaders in every useful occupation.*

*—ARTHUR M. HYDE, Secretary of Agriculture.*

# EDITORIAL COMMENT

## AGRICULTURAL EDUCATION

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### ON THE SIDE

IT IS hardly fair to reveal in public print the contents of intimate and highly prized personal letters, but I am constrained to do so because of the nature of some of the communications I have recently received, even tho it were to cause a scandal.

During the past year the contributors of evening school materials to this magazine, from all parts of the country, have added materially to our understanding and appreciation of the problems in this phase of our vocational education program. These contributors, however, have indicated to me in the personal letters accompanying the articles I have received wonderful texts from which might be preached many eloquent sermons on the importance, place, and value of evening classes in vocational education in agriculture.

Here are a few such texts, quoted from my correspondence:

1. "I know my farmers better now than ever before," said an experienced teacher from Ohio, after concluding his first evening class.
2. "The boys' projects are easier to get started since I have evening classes going on," states an instructor from Texas, with eight years of vocational teaching behind him.
3. "For the first meeting or so the discussion dragged, but now it is easy for them to talk," says a successful teacher after his first evening school course in South Carolina.
4. "We are reaching the older boys out of school along with the dads," comes from a veteran on the firing line in New Jersey.
5. "I'm beginning to see the problems that farmers have thru our evening classes," writes a teacher from Nebraska.
6. "My farmers may not read bulletins, but they do learn

from our class discussions," is revealed in a letter from a Tennessee teacher.

7. "The evening school work has shown me how to select problems for my high school classes," says a Minnesota teacher.

I believe these quotations are each and every one worthy texts for splendid sermons on vocational education, but, since the editor hasn't space to preach, he can only pray that you "think on these things."—J. T. W.

### FUTURE FARMER AG DAYS

FOR a long time students of Vocational Agriculture have gained recognition for excellent work in judging contests at county and district fairs and have gradually taken increased interest in exhibiting their livestock. Since the organization of the National Association of Future Farmers of America, these wide-awake boys have been looking for other activities of organized effort that demand teamwork.

During the last two years there has developed in one state an activity known as Future Farmer Ag Day, that is gaining fast recognition by other local chapters and gives promise of being one of the outstanding activities of the school year. This Ag Day is put on by the local chapter on some school day during the spring months. Its main features are livestock fitting contests and livestock showmanship contests interspersed with judging contests, a parade thru the business part of the town, and short talks.

These Ag Days are unique in that the prizes are not awarded to the livestock. Competition is between the boys and no one is handicapped by not having an outstanding type animal to exhibit. The winnings in the fitting contests are based on the individual skill, judgment, and persistent effort of the boy to put into application the best ideas for fitting animals. The showmanship contest demands alertness and constant attention to the animal he is exhibiting.

Its popularity is due to its demand for leadership among the members and the necessity for active participation of each member in planning and executing his part of the day's activity. Previous to one of these Ag Days there were 17 different committees composed entirely of the 38 members of the chapter actively at work to put over their program. Animals from a distance had to be brought in the previous afternoon. Groups of boys camped out in a tent and took their turn at guarding and protecting the livestock during the night. The exhibit grounds, a vacant lot close to the school building, was teeming with activity the afternoon before and the next morning with budding showmen putting on the finishing touches before the contests opened. When the day's activities started these committees had gathered and fitted for showing 23 horses, 18 dairy cows, 16 calves, 9 beef cattle, 8 hogs, 21 sheep, and over 30 poultry.—W. K.

### PROGRESS IN AGRICULTURAL EDUCATION

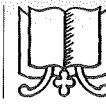
REPORTS of the Federal Board for Vocational Education are replete with many worthwhile facts and figures.

A study of these reports will give the reader a true conception of the scope and magnitude of agricultural education as carried on under the leadership of this Board. A comparison of the data tabulated in reports of various years will clearly indicate trends and tendencies in various aspects of the work.

With the thought in mind that most teachers may not have an opportunity of studying the Federal

Board reports, and that they would be interested in comments regarding progress as indicated by such reports, considerable space in this issue is devoted to articles by members of the executive staff of this Board. The writers have presented some of the more noticeable trends in their fields and have in most cases offered suggestions leading to further progress.

A thoughtful reading of these articles will broaden our viewpoint in the field of our major interest, and stimulate constructive thinking and action leading to an increased rate of progress.—S. D.



## Some Observations on the Administration of Vocational Education in Agriculture, 1930

C. H. LANE, Chief, Agricultural Education Service, Federal Board for Vocational Education

### Number of Schools

**D**URING the fiscal year 1929 there were 6,533 centers in the United States where some type of vocational agricultural instruction was offered, such as all-day, part-time, evening, and day-unit courses. In 1930, or the last fiscal year, there were 6,918 centers in the United States where some type of vocational education in agriculture of less than college grade was given.

All the states, including the Territory of Hawaii, had all-day work in vocational agriculture, while the following states did not offer evening work, or at least did not report such work to the Federal Board for Vocational Education as federally aided: Indiana, Kansas, Maine, Maryland, Massachusetts, Montana, New York, North Dakota, Pennsylvania, and Wisconsin.

States not reporting part-time work are as follows: Arizona, Connecticut, Delaware, Idaho, Indiana, Kansas, Kentucky, Maine, Massachusetts, Maryland, Michigan, Missouri, Montana, Nevada, New Hampshire, North Dakota, Pennsylvania, Rhode Island, Vermont, West Virginia, Wisconsin, and the Territory of Hawaii.

The only type of school which showed a decrease in 1930 over the year 1929 is the part-time school. It is also to be noted that there was a decrease in the day-unit type of school in certain sections of the country. For the entire country there was an increase of only five day-unit schools in 1930 over the year 1929.

The states with more than 100 all-day departments of vocational agriculture in high schools are as follows: Alabama, 133; Arkansas, 105; California, 105; Georgia, 131; Illinois, 205; Indiana, 129; Iowa, 111; Kansas, 107; Kentucky, 113; Louisiana, 111; Michigan, 156; Mississippi, 174; Missouri, 133; New York, 112; North Carolina, 155; Ohio, 194; Oklahoma, 104; South Carolina, 179; Tennessee, 161; Texas, 298; and Virginia, 143.

### Enrollment in Vocational Courses

The total enrollment in all federally aided agricultural schools and classes in 1929 was 168,444, as against a total of 188,311 in the year 1930. The federally aided evening class enrollment increased from 47,283 in 1929 to 60,462 in 1930. The enrollment in part-time schools shows a decrease in 1930 over 1929. A very slight increased enrollment is shown in the day-unit school.

The total federal fund available for vocational education in agriculture in 1930 was \$3,281,423.68. This money in-

cludes the Smith-Hughes and George-Reed Acts. The total unexpended balance which was not used by the states was \$86,274.70 of the Smith-Hughes money and \$227,785.94 of the George-Reed money, or a total of \$314,060.64.

All but 23 states expended their Smith-Hughes money and 19 states failed to use all the George-Reed money. Of course, in a few instances the states had very small balances, as for example, Florida had a balance of 51 cents of the Smith-Hughes money, and Ohio had 99 cents of a balance in the George-Reed money.

### Changes in Personnel

Mr. Paul McCoy, formerly teacher of agriculture at Weston, West Virginia, was appointed assistant state supervisor of agricultural education and itinerant teacher. Mr. O. K. Jenney has been added to the teacher-training staff at the University of Vermont and will serve as demonstration and critic teacher for the Department of Agricultural Education. Mr. W. B. Sexton, District Supervisor in Alabama, resigned, and Mr. P. C. Brooks has taken his place. Mr. J. S. Howard, District Supervisor in North Carolina, resigned, and

Mr. E. N. Meekin has taken his place. Mr. J. O. Wolf has been appointed full-time supervisor of agriculture in North Carolina. In Florida, Mr. H. E. Wood has been added to the supervisory staff as assistant state supervisor. In Mississippi two new county co-ordinators were put on, Mr. C. F. Clark and Mr. P. D. Houston. The co-ordinator is primarily a local supervisor, altho most of his work is simply outlining the general program for the county. In South Carolina, Mr. H. A. Brown was added to the supervisory staff.

In Arkansas Mr. E. B. Matthew, the state supervisor, was promoted to director and part-time supervisor. Mr. R. B. Smith, formerly teacher-training agent, was promoted to state supervisor.

Mr. H. C. Fetterolf's position in Pennsylvania was changed from assistant director to director of agricultural education, while Mr. V. A. Martin and Mr. J. S. Champion were made assistant directors of agricultural education.

In West Virginia, Mr. J. V. Ankeney was raised to the position of assistant state director on a part-time basis. He will continue as state supervisor of agricultural education.

In Colorado Mr. Herman Fauber, for several years teacher of agriculture at Rocky Ford, Colorado, was elected to the position of assistant state supervisor on a half-time basis and a half-time itinerant teacher trainer.

In Montana, Mr. J. E. Border, teacher of vocational agriculture in Harlowton, was appointed state supervisor of vocational agriculture in the place of Mr. M. J. Abbey, resigned.

Mr. S. S. Sutherland was appointed teacher trainer in agriculture at the Montana Agricultural College.

In Oregon Mr. E. R. Cooley was appointed to take the place left vacant by Mr. O. I. Paulson, state supervisor of agriculture. Mr. Carl G. Howard was appointed state supervisor of agricultural education in Wyoming, succeeding Mr. W. Arthur Ross, resigned. In Illinois Mr. H. R. Damisch was appointed assistant state supervisor of agriculture. In Indiana Mr. K. W. Kiltz was appointed as assistant in itinerant teacher training. In Iowa Mr. H. G. Hall was appointed assistant state supervisor of agriculture. In Nebraska Mr. Leroy Clements was appointed state supervisor of agriculture to take the place of Mr. J. H. Pearson, resigned. In Wisconsin Mr. Ivan G. Fay was appointed itinerant teacher trainer to take the place of Mr. V. E. Kivlin, who was transferred to teacher-training work at the University of Wisconsin.

### TWO OTHER VALUABLE PUBLICATIONS FOR TEACHERS OF AGRICULTURE

**AGRICULTURAL EDUCATION** is now regarded by most vocational agriculture teachers as an essential aid in the improvement of their work and in their professional advancement.

There are, in addition, two other publications with which every vocational teacher should be familiar. They are proving to be valuable in extending interest, understanding, and appreciation of our work among various groups of persons.

**THE AGRICULTURAL LEADERS DIGEST**, published by the American Farming Publishing Company, 537 South Dearborn Street, Chicago, is just what the name indicates. It offers, four times each year, news and information in the fields of vocational agriculture, home economics, and extension work which help to co-ordinate such activities. The articles are brief, well written, and numerous illustrations are used. The Digest is edited by Estes P. Taylor and will be sent to you upon request without cost.

**BETTER FARM EQUIPMENT AND METHODS** is published monthly by the Midland Publishing Company, 804 Pine Street, St. Louis, Missouri. Its 36 pages are always full of interesting and helpful ideas on farm equipment and mechanics. It is issued in the interest of teachers of vocational agriculture and county agents, and is well illustrated. Arch S. Merrifield is the editor and he will be glad to place your name on his mailing list free of charge.

# Progress in Methods of Teaching

A. P. WILLIAMS, Federal Agent, North Atlantic Region



A. P. Williams

**I**N REVIEWING progress in methods of teaching agriculture the writer considers "method" in a very broad sense, including the selection of training content as well as the ways and means of putting the learner in contact with the desired training and experience. The following brief summary of trends is based on statements from the annual reports, consultation with the other regional agents and observations of the writer. No attempt has been made to measure the amount of progress in the different states, but rather to give a picture of some of the high and low lights of the work in the whole country.

The need for more directly functioning teaching content has been expressed in the work of the National Committee on Objectives in Vocational Education in Agriculture which will shortly be published and made available to workers in the field. Many rather stereotyped courses of study still prevail. These courses may be properly classified as informational subject matter courses rather than as courses built up on the idea of training students for specific farming occupations. A number of the states, however, are breaking away from these traditional practices and are adapting their courses to actual training needs as they are developed by surveys of farm enterprises, farm practices, and farming conditions in respective localities. The development of the idea of long-time programs of supervised farm practice has been largely responsible for this change. In carrying out a program of supervised farm practice it was recognized that a boy was not necessarily finished with a farm enterprise when he had studied it one year and passed a paper examination on it. Administrative difficulties have arisen, however, in connection with this attempt to make agricultural courses of study more flexible and responsive to the needs for farmer training. These difficulties have to do largely with meeting the requirements of the traditional school system in reference to grading, passing, and promotion on the basis of informational subject matter units. Any change from the old system demands a change in point of view on the part of teachers and administrators.

## Individual Instruction

A few of the states are trying to break away from the old system by organizing their courses on the basis of a cross-section of farming with two, three, or four-year programs of teaching made up on the basis of selected managerial and operative jobs correlated as closely as possible with the supervised practice programs of the pupils. On this basis more attention is being given to performance tests, the provision of a wider range of actual experience in farming

and the setting of tangible goals of achievement on the part of the pupils. This program involves a larger provision for individual instruction but the advantages of systematic group instruction are not lost sight of.

One of the ways in which individual instruction is being effectively provided in some of the states is in connection with project planning altho our progress in this phase of the work has been very slow and discouraging. In the opinion of the writer, the common supervised-study, note-taking procedure has not been effectively used as a device for individual instruction for the reason that training objectives, other than that of memory, have been too largely ignored. Teachers are beginning to realize that pupils have to be taught how to plan projects, how to make estimates and forecasts and how to do managerial thinking on the basis of individual evaluation of the facts and working conditions with which they have to deal. Group instruction is being effectively used in some of the states for the purpose of giving pupils a pattern of operative and managerial activities, whereas individual assignments enable the pupil to get the required repetitive experience which will result in the development of doing ability. Altogether too much time is being wasted with informational testing.

## Conference Procedure

One of the most encouraging developments is the attention which is being given to the use of the conference procedure in teaching, especially in connection with work with adult farmers, altho this procedure is applicable to any group having sufficient background of experience in the job or subject under discussion. Many teachers are realizing the thrill which comes from getting effective thinking done by members of the group. They are becoming more concerned with the use of facts rather than the mere dispensation of them. The conference procedure helps to make the teaching functional and to keep the teacher from "over-shooting" his group.

Among some effective devices which are being used to provide participation and experience on the part of pupils may be mentioned group projects, F. F. A. activities, co-operative marketing trips, and farm practice surveys. Group projects have proven particularly valuable in providing first-hand experience under supervision, in furnishing working data which have been used directly in group instruction, in serving as managerial case studies, and in providing patterns of sound operative practice which boys have adopted in their individual projects. Future Farmer work stimulates and provides experience in leadership, thrift, and co-operative effort. The effectiveness of F. F. A. work should help teachers to appreciate the value of active and well-motivated participation in connection with all phases of their teaching. In order to be familiar with the developments in marketing some of the states have encouraged the schools to take trips to terminal markets in co-operation with local and state

livestock shipping associations. On these trips the handling of the products has been traced from producer to consumer and a better appreciation of the various and necessary functions has been secured first-hand. The participation by pupils in farm practice surveys not only relieves the teacher of a lot of work but also has served as an excellent teaching device. More and more teachers are appreciating the need for using facts secured first-hand from the farms and market places rather than the frequently stale facts and generalizations in textbooks. Some of the states are trying to supplement these locally gathered facts with farm management data secured from other sources. Effort is being made to make such facts more readily available to the teachers. There appears to be a growing need for this fresh up-to-date farm management data as well as a need for discarding much dead matter which has cumbered our courses of study.

In this connection, it is encouraging to note the gradually increasing use by teachers of case studies of actual farms and farm situations as a basis for their teaching units. These case studies provide not only natural settings for the teaching units but also a normal basis of unity and concreteness as contrasted with the all too common study of abstract principles and generalizations. Likewise, the study of interpretive science is gradually being regarded more as supplementary and explanatory material directly correlated with farm job situations rather than as basic subject matter to be taught directly and for its own sake. In the country as a whole there still appears to be altogether too much attention given to the study of unrelated science as an end in itself.

## Length of Class Period

Considerable attention has recently been given to the distribution of time in vocational class periods. This is a question which directly concerns method and objectives. If the teacher's objective centers on informational subject matter it makes very little difference what length of periods or time stretches are available for group instruction since this type of work can be divided or terminated more or less arbitrarily. However, if the teacher regards his function as primarily that of providing experience for the learner, he will find many situations in which the provision of long periods free from interruption is essential. There is very little question as to the need of longer time stretches than the usual academic period for field work and most types of farm mechanics or shop work. There is not so general appreciation, however, of the need for longer time stretches for various other types of group instruction which are frequently conducted in the classroom, as for instance, in the development and use of factors in the study of a managerial case situation. Here it is essential that the line of thought be continued unbroken for a reasonably long period if most effective results are to be at-

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# Progress in Subject-Matter for Instruction in Vocational Agriculture

W. A. ROSS, Specialist in Agricultural Education (Subject-Matter)



W. A. Ross

SEVERAL years ago when the teaching of vocational agriculture was a brand new subject in secondary schools, one of the most difficult problems confronting teachers of vocational agriculture was that of obtaining suitable teaching material. Much of the material at that time did not lend itself to use from the standpoint of practical vocational instruction involving actual pupil participation. Very little material had been prepared expressly for use in vocational agricultural classes. In other instances, only limited amounts of suitable material were available on certain agricultural enterprises and phases of enterprises.

This problem of keeping up to date and obtaining current, usable, appropriate subject matter for use in connection with the systematic instruction offered is still with us. It will always continue to be with us, due largely to the constantly changing agricultural conditions and the consequent revealing of new findings, facts, and figures, resulting from agricultural research. However, more and better teaching material is available to the teacher of vocational agriculture today than ever before and there is every evidence of the fact that constant progress is being made in this direction.

Since 1917, rapid strides have also been made in developing approved methods of teaching vocational agriculture and in training teachers for their jobs. This has given us a clearer picture of the actual needs for subject matter, as well as an indication of the type and form in which the teaching material seems to be most helpful. Government, state, and many commercial agencies are now attempting to prepare helpful material for specific use in vocational agricultural classes.

### Subject Matter Selection

There is a distinct contrast in the angle which the subject matter problem had in the beginning compared with the angle which presents itself to the worker in the field of vocational agriculture today. While there is still a shortage of specific locality teaching material, there is an abundance of other material which is very usable if adapted to local situations. The teacher's problem in this respect has now become more one of careful selection and evaluation from a mass of available subject matter material rather than that of facing a constant shortage of material, except in certain instances. As subject matter develops, this selection and evaluation process will become increasingly important among teachers if effective instruction is to be offered.

Subject matter is interwoven with every phase of vocational education in agriculture, but providing it and using it are a means to an end rather than the end itself. The problems are national, regional, state, local, and individual in nature. Obtaining and making effective use of agricultural subject matter involves work on a national, state, and local basis. There are certain phases which can best be handled within each of these areas. Co-operation between vocational forces in these areas on subject matter problems is essential. Certain agricultural information and teaching material applies nationally; certain regional and state data must also be available and specific local data is absolutely essential to an efficient vocational agriculture program. Teachers should constantly bear in mind the fact that much of the best subject matter can be derived locally from the territory adjacent to their departments of vocational agriculture.

### U. S. D. A. Contacts Made

Efforts along subject matter lines in the agricultural education service of the Federal Board for Vocational Education during the past year and a half have been confined, largely, to work with the United States Department of Agriculture. Contacts have been established and are being maintained with various bureaus and divisions of this great scientific organization. An attempt has been made to familiarize workers there with character and scope of vocational education in agriculture. Attention has been drawn to the strategic position which vocational forces occupy as an agency for upbuilding agriculture in states and in local communities. The need for the latest current information and material being made available to all vocational workers has been stressed.

A splendid co-operative attitude on the part of all workers in the Department of Agriculture has been displayed and a keen interest has been shown in the problems and activities in connection with vocational agriculture. Due to this splendid helpful attitude, some co-operative work has been accomplished based upon a few of the important subject matter needs in the field. This co-operative work has involved a variety of subjects and it has applied to many sections of the United States.

One of the first projects undertaken was to attempt to get certain regular publications of the department into the hands of vocational workers. All state offices of agricultural education for several months past have been receiving "The Official Record" of the U. S. D. A.; this monthly publication is sent to certain co-operators of the department free of charge. "Crops and Markets" and "The Agricultural Situation," those two valuable little publications of the Department of Agriculture, are to be sent regularly, free of charge, to state workers and to every department of vocational agriculture in the United States, without specific requests from

individuals, beginning with this year. All three of these publications are sent for the use of those concerned, but are designated as the permanent property of the office or department. It is thus hoped that complete files of these publications will be maintained for reference.

Everyone is familiar with the yearly Agricultural Outlook Report, issued from the Bureau of Agricultural Economics, U. S. D. A., in January of each year. Copies of this Outlook have been sent direct to all state workers and all teachers at the time they were issued for both the years 1930 and 1931.

In addition to the publications just mentioned various lists of available publications of the U. S. D. A. and copies of many of the most important current publications dealing with certain commodities have been forwarded to vocational workers in regions where the material was applicable. Thousands of individual requests from teachers for bulletins, charts, and so forth, have been filled from various offices in the U. S. D. A. This will continue to be every teacher's responsibility in assisting in keeping himself and his teaching up to date at all times. In this connection, all teachers of vocational agriculture should request the United States Department of Agriculture, Office of Information, Division of Publications, to place their departments on the mailing list to receive regularly the monthly publication list. Free publications can then be selected and ordered from these lists as desired.

Several subject matter projects have been carried on co-operatively by the Agricultural Education Service of the Federal Board for Vocational Education and certain offices in the United States Department of Agriculture. Examples of these co-operative projects include a revision of the vocational placing cards used in national judging contests and the preparation of teaching suggestions on the use of agricultural outlook material. Other co-operative projects are in progress.

### Subject Matter Service

A system of Subject Matter Letters has also been inaugurated by the Agricultural Education Service of the Federal Board. These letters are sent from time to time to state supervisors and teacher-trainers, calling attention to the availability of and commenting on the use of various types of important available subject-matter material. It was expected that state workers would, in turn, inform the teachers about this material and assist in getting it into the teachers' hands. Examples of material called to attention thru such service letters are:

1. Motion picture films available from the United States Department of Agriculture.
2. Lantern slides and film strips available from the U. S. D. A.
3. Available bulletins of the U. S. D. A.

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# Progress in Teacher Training

H. B. SWANSON, Specialist in Agricultural Education (Teacher-Training)



H. B. Swanson

**W**RITING briefly to the large number of readers of this magazine, most of whom are teachers of vocational agriculture, is both an interesting and a baffling problem with the subject teacher training.

We have experienced much in common since all have been exposed to teacher-training programs with some of the exposure taking effect, some of it passing by with little or no imprint. It is an intensely interesting experience to have contact with the many developments in teacher training. Virtually every teacher training institution has inaugurated changes and new developments that are unique and valuable in making more effective the program in teacher training and a like statement may well be made regarding the activities of supervisory staffs in their function relating to the training of teachers.

Within the limits of this paper, only the general trends of the year can be suggested. Broadly speaking there are two levels of teacher training, the pre-employment phase that we look back upon as the inspiring and pleasant undergraduate days, and the post-employment training which on the whole is a more vivid and real present-day program of helpful visits from supervisors and teacher trainers, newsletters, committee work, state and district conferences and for many, actual resident graduate work that has a rich and significant implication because of the background of successful experience so lacking in undergraduate days.

## Pre-employment Trends

Notable trends of the year, on the pre-employment level, appear to follow a number of lines and are common to a sufficient number of teacher-training departments to be worthy of mention:

1. An increased degree of participation training wherein the goal is that of bringing the trainee to the "doing level" of ability rather than that he possess mere information about the job. A number of states have growing programs that enable undergraduates to assume full responsibility for the organization and teaching of evening classes, day-unit or part-time groups as well as the usual day-school work. In addition, these trainees supervise the farm practice thruout the entire school year, organize or sponsor Future Farmers of America units, prepare such reports as are necessary to advance the program by responsible administrative officials and audit project record books from the field. Participation over longer periods of the year, a greater degree of student responsibility, and added types of activity appear to be the goals in this trend.

2. The increased degree of participation forms of training has stimulated

another activity in teacher training circles. A number of studies have been initiated during the year that have for their purpose the careful evaluation of courses commonly found in professional curricula with view to the elimination of some courses, merging of courses, and deferring of others to the graduate level since it becomes increasingly difficult to secure more time for teacher training. Yet another interesting trend is noted in curricular studies designed to discover the specific demands made upon the teacher of vocational agriculture for the purpose of modifying both professional and technical courses to meet demands that are consistent with the major objectives of the vocational program. Many changes have been made in courses during the year as a result of these investigations.

3. Increased attention is accorded to program making in terms of community development along agricultural lines. While program building is not a new development, it appears that more emphasis is being given this feature in pre-employment training courses.

4. A tendency to take trainees to the field where they may experience and study at first-hand the problems of the job. Trips to the field have been productive of exceedingly fine achievements since many of the problems of the special methods courses deal with work-a-day situations to a greater degree than ever before.

5. A trend in the direction that a greater number of teacher trainers have opportunity for first-hand contact with the work and the actual problems of the teachers of the state. Reports indicate that these field contacts are beneficial to the teacher on the job as well as to the teacher trainer.

6. A trend in the direction of a greater number of students taking the work in teacher-training. This appears to be due, in part, to the increased demand for teachers to staff new departments and occasional two-man departments. While the number in training appears to have increased over last year, the growth is not of such nature as to result in an over-supply of teachers of vocational agriculture as is the case in general education with its consequent unemployment of certified teachers and its possible tendency toward lowered salaries.

7. A trend is found in the direction of an increasingly large percentage of trainees to come from vocational departments. These young men are skilled in the activities of the farm as a result of the practical training secured under the supervision of competent teachers of vocational agriculture. Again, this tendency has resulted in an interesting series of studies for the purpose of modification of the technical curriculum in the teacher-training institutions in order that duplication of instruction between high school and the college may be avoided. A dean of a large college of agriculture recently stated that it is now our major responsibility to build on and go ahead from where we find our students who come with training in high school agriculture. With many young

men coming into teacher training courses with a background of vocational experience, the way is open for a more careful selection of trainees. A number of institutions are making progress in perfecting programs to carefully recruit and select prospective candidates since the vocational teacher is looked upon more and more as being in a strategic position to assist the farmers of the state.

## Post-employment Trends

Developments of the year, on the post-employment training level, are fully as significant as are the trends on the pre-employment level. A few of these are briefly noted:

1. A marked trend is found in many states to provide more adequate assistance to beginning teachers thru itinerant and supervisory visits.

2. A tendency exists to provide added personal assistance to all teachers in order to make available the newer developments in professional and technical fields with the emphasis in the latter on co-operation and agricultural economics. There is an increase in the amount of district supervision and in the number of district conferences dealing with course and program building. Newly developed chart services have been established to assist evening school instructors, carefully compiled subject matter summaries and unit course data for evening schools continue on the increase, and last, there has been a noticeable increase in valuable material released to further the work of Future Farmers of America chapters. There is a dangerous tendency creeping out in a few isolated cases where teachers are depending too largely on these aids. It should never be forgotten that a tremendous amount of work is demanded of the teacher to adapt aids from state sources to local use and to use local data as the mainstay of instruction.

3. There is a trend toward providing courses designed to assist school administrators in organizing and supervising vocational programs.

4. A marked trend to provide graduate courses specifically planned to function more directly in the work of the teacher who finds it possible to take advantage of resident, graduate work.

5. The trend continues in the direction to provide attractive and intensive summer courses on the graduate level. These courses are set up on the three and four-week basis for the convenience of vocational teachers who are unable to take advantage of the 6 to 12-week summer courses.

## Lengthened Tenure

Several other trends in teacher training that do not fit in the above classifications are of interest:

1. There is a well defined trend toward increased length of tenure on the same job, increased number of years of total teaching experience, and a slight decrease in teacher turn-over that appear as healthy conditions.

2. There have been a number of

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# Progress in Supervised Practice

R. D. MALTBY, Federal Agent, Southern Region



R. D. Maltby

**I** W O N D E R how many agricultural teachers realize that the difference between vocational agricultural education and general agriculture is a supervised practice program.

It is comparatively easy for anyone with moderate

training to take a textbook in agriculture and teach the subject without its practical application in the field. In vocational agriculture the work begins in the field and, as the word implies, means training in the skills and operative jobs to be performed, training in managerial analysis and an education in the use of agricultural data as it applies to the practical problems.

Because vocational agricultural education requires a much better prepared man, vocational agricultural education costs more than that of general agricultural education. The above statement is made for one purpose only—that of calling to the attention of the vocational agricultural teachers their responsibility in regard to the all-important phase of their work, that is, supervised practice. On a whole, the teachers are improving on their methods in connection with the supervised practice if the annual re-

ports of the state supervisors are a criteria; yet a great deal is still to be done before we reach anywhere near the standards set up for an education in farming.

Improvements have been made in scope of the supervised practice work as to size of projects and number of activities engaged in by the pupils. The boys enrolled in the vocational agricultural classes in 1928-29 reported a labor income of \$8,155,340.22, a very neat sum when considered in its entirety, but significant only when compared with the extensiveness of the program and the number of individuals involved. This represents slightly more than \$100 labor income per pupil. The same reports tell us that for the year 1929-30 there were 108,760 vocational agricultural pupils enrolled in the all-day classes. Of this number 31,091 were reported as carrying other forms of supervised practice together with their projects, while 11,434 pupils were carrying no projects but were carrying out their supervised practice work in some other manner than that of a project. Most of these boys' work was that of farm jobs under the supervision of the teacher and a few of them as "farm labor."

Analysis of the project work conducted by the pupils for 1929-30 indicates that 41,591 boys were carrying 177,344 animals, 17,852 boys were carrying 2,086,000 birds, 411 boys were carry-

ing 8,243 animals under the classification of fur, 59,852 boys were carrying 239,858 acres of farm crops, 9,894 boys were carrying 8,130 acres of truck, 2,355 boys were carrying 4,511 acres of fruit and 148 boys were carrying 184 acres of special crops. Among some of the special problems included in the supervised practice work we find 511 boys with farm accounts, 135 boys with home improvement, and 12 boys with marketing problems. The average per pupil was: For animals, 4; birds, 116; field crops, acres, 4; truck, .8; and for fruit, 1.9. As a whole, this report is very satisfactory, but when we think of these figures as simply representing averages, we realize that there are literally thousands of boys still carrying one acre or one animal.

Probably the most outstanding development in the supervised practice program is its correlation with the classroom work. Still too many teachers are laying out an arbitrary course of instruction without taking into consideration the supervised practice program of the pupils, hence much of the instruction in connection with the supervised practice must be individual, and on the other hand, there is very little or no application of their teaching. Probably the ideal set-up is that of selecting the supervised practice in terms of the facts obtained from the community survey and then the course of study set up in

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## Progress in Evening and Part-time School

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



J. H. Pearson

**W** H E N the idea of agricultural classes for adult farmers was first conceived to be part of the program of vocational education in agriculture no one dared predict what its development would be. Ten years of experience

with this type of work show very decided trends in its expansion and improvement. The following table shows the growth since 1921 in number of evening schools and enrollment:

Year	Number of Schools	Enrollment
1921.....	30	1,139
1922.....	50	1,333
1923.....	358	9,519
1924.....	551	15,227
1925.....	672	15,835
1926.....	895	19,239
1927.....	1,049	26,227
1928.....	1,338	35,192
1929.....	1,831	57,283
1930.....	1,926	63,948

The 1,926 schools in 1930 were conducted by 1,410 teachers of vocational agriculture, this being 40 percent of the

total number of teachers. These teachers had 56 percent as many evening schools as there were total number of teachers of vocational agriculture. It is evident that many instructors had more than one evening school, while others did not have any. This situation will be found in the same county, within the state, and in the different regions. Why does such a condition exist? Can it be that farmers in only some communities, states, or regions will respond to such a program and will profit by such schools; that some school superintendents, state supervisors, and teachers have recognized the value of such a program in the community while others have not; that some teachers have had sufficient training to efficiently do the job while others have not; that sufficient promotional work has been done in some cases and not in others? If not any of the above reasons, then why is there the difference in the development of the work in certain communities and states?

### Promotion Needed

Expansion of the program can be in many instances traced to definite promotional work. Such promotional work is given below. An objective, "to have 50 percent of the departments in the region conducting part-time or evening schools," was set up in the North Central Region. This objective was reached

the first year it was set up by four states in the region. A number of states have goals of 50, 60, or more persons enrolled for systematic instruction in agriculture. When there is not that number in all-day work the teacher is responsible for securing the additional number in part-time or evening work. Iowa has recently adopted a plan of reimbursement which is conducive to the development of evening and part-time work. A teacher is now considered to be on a full-time basis when he has three all-day classes and an approved part-time or evening school, or when he has two all-day classes and two approved part-time or evening schools. In Georgia, it is maintained that the greatest influence in the development of the evening program was the employment of a special supervisor for evening schools. Such supervisors or itinerant teacher trainers have been employed in several states.

In the Southern Region the number of units giving evening instruction is practically the same as those giving all-day work. The enrollment in evening schools represents over 40 percent of the entire enrollment in the region.

One of the new developments in New Mexico consisted in the holding of an evening class during the summer months. This often has the advantage of discussing the problems when they

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# Progress in Studies and Investigations

F. W. LATHROP, Specialist in Agricultural Education (Research)



F. W. Lathrop

**T**HE titles of recently completed studies in agricultural education show that certain phases are being studied more intensively than others. In commenting on these more studied phases and the studies relating to

them, it will not be possible to consider all the studies completed during the past year.

The recent expansion of evening school work has stimulated a group of studies\* in this field which appear to be much needed. Measurement of results is emphasized primarily because it is important and secondarily because this type of instruction can be measured by changed practices.

Another field which has received attention is the teacher training curriculum†. The Jones study is a careful description and analysis of our present teacher-training curricula from an administrative point of view. The catalogs of the teacher-training institutions are checked by transcripts of students. The principle underlying all the studies in this group except that of Jones is that the technical agriculture in the teacher-

training curriculum must be based on the agriculture of the area in which the trainees are to teach. The needs of trainees as nearly as they may be determined, should be used as a basis for selecting content. This group of studies points the way.

Several studies have come out during the past few years relating to the placement of agriculture departments‡. The latest one is by Feaster Wolford. Others made by C. R. Wiseman and J. K. Coggin are somewhat older. The problem of department mortality is still a serious one. These studies with two or three other similar and older studies might be brought together some day to good advantage.

Few studies which deal with the supervision of vocational agriculture§ have been made. One has appeared during the past year by A. M. Field. One impression the reader gains from this study is that the technique of supervision has a long way to travel in vocational agriculture. It is not nearly as well developed as in the elementary school.

The most exhaustive study of records and reports for state supervisors was completed during the past year¶. This was a study of opinions handled carefully and skillfully bringing together the experience of the states in respect to records and reports.

A study of the students in our agri-

cultural colleges would show that an appreciable proportion of them in some states have been enrolled in vocational agriculture in high school. Several studies have been made to compare this vocational group with the other students. Three masters theses|| have been completed in the past year in this field.

Another group of studies should be mentioned, altho these studies are seldom published or put in the form of a thesis. In several of the states studies are being made of the occupations of former students of vocational agriculture. Most of them are continuing studies, a check being made from time to time on the former students, particularly those engaged in farming occupations. As time goes on these studies will be more and more valuable.

A plan recently adopted by the Research Committee, Agriculture Section, American Vocational Association, promises to have an important influence on future studies.

In the past there has been no lack of persons ready and willing to study the problems of agricultural education. A list compiled in February, 1930, contained 239 studies. This list was not complete nor does it include studies completed during the past year.

The number of studies made might indicate that the field of agricultural education has been thoroly studied. The

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## Progress in the Negro Schools

H. O. SARGENT, Federal Agent for Agricultural Education, Southern Region



H. O. Sargent

**T**HE first year the Federal Board for Vocational Education was organized, that is 1917-18, 35 all-day vocational departments of agriculture were placed in the Negro schools. These 35 departments had an enrollment of 1,025 pupils.

The number of departments and the enrollments have gradually grown each year, and for the year 1929-30 there were 427 all-day departments in the Negro schools with a total enrollment of 9,643 pupils. In addition, there were for the year 1929-30, in the Negro schools, 137 day-unit classes, with an enrollment of 2,033 pupils, 128 part-time classes, with an enrollment of 1,439 pupils, 380 evening classes, with an enrollment of 6,460. This makes a grand total of 19,555 Negroes who are now being reached by vocational instruction in agriculture.

Seventeen states in the South have separate schools for Negroes and 13 of these states have separate teacher-training institutions for the purpose of preparing teachers of agriculture for the

Negro schools.

At first, it was nearly impossible to get a sufficient number of trained teachers of agriculture for the Negro schools and in order to do any work at all with the Negroes many teachers were placed in these schools who had very little preparation. However, the teacher-training institutions are now preparing a sufficient number of trained teachers of agriculture, so in the future no one will be employed to teach vocational agriculture in the Negro schools who is not a graduate in agriculture and agricultural education from a teacher-training institution.

It was also nearly impossible at first to get a sufficient number of trained teachers to take charge of teacher training at the different institutions. However, there are at present only trained men connected with the teacher-training institution. Seven of these men have master's degrees in agriculture and agricultural education and the others have bachelor degrees.

Thirteen of the 17 states which have separate schools for Negroes have itinerant teacher trainers. A few of these itinerant teacher trainers spend all of their time, and others a part of their time, visiting the different vocational departments of agriculture in the Negro schools in order to assist the teachers to

better organize and conduct the work which they are doing in agriculture.

The Negro vocational pupils of agriculture have an organization known as the New Farmers of America. Practically every state which has separate schools for Negroes has a student organization. Last spring at a students' contest for Negro pupils of vocational agriculture from the states of North Carolina, South Carolina, and Virginia, there was formed a sectional student organization and an invitation was extended to the other states to come in and form a regional organization. It now looks as if in the next two or three years there will be a regional student organization of Negro pupils similar to the national organization of white students. The different states report that this organization of Negro vocational pupils of agriculture has been a great assistance to the Negro teachers in putting over a much better program of work.

Practically every vocational department of agriculture in the Negro schools has a farm shop and perhaps no piece of vocational work in agriculture has created a more favorable impression on the public than has this farm shop work which is being done by some of the Negro vocational teachers of agriculture. One of the philanthropic founda-

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# Part-Time Schools



## Part-time Courses Proving Effective

L. M. SASMAN, Supervisor of Agricultural Education, Wisconsin



L. M. Sasman

**T**HE foremost factor influencing attendance of farm boys in part-time schools in agriculture is the location of farm boys in the community who do not attend high school. The number of such boys undoubtedly varies greatly in different communities and states, but surveys which have been made in various places thruout the nation indicate that there are, in practically every community, as many farm boys of high school age out of school as there are in attendance at the high school.

One of the most detailed studies of the location of possible part-time pupils was made by Lyman E. Jackson at the University of Wisconsin and covered the west half of Dane County. This county is the county in which the University of Wisconsin and the State Capitol are located and it would seem that there would be less likelihood of pupils being out of school than in sections where school facilities were less readily accessible. Yet, thru this survey, there were located in half of Dane County, 1,050 boys between the ages of 14 and 25 who are out of school and living on farms. (711 of these boys were between the ages of 14 and 20.) Surveys conducted in 1925 by the instructors in the 64 departments of vocational agriculture in Wisconsin showed that there were, in the radius from which pupils came to the various high schools, 2,593 young farmers from 14 to 20 years of age not attending any type of school. There were at that time only 1,563 farm boys enrolled in high school departments of vocational agriculture in Wisconsin.

### Surveys Show Need

A survey conducted in Tennessee in 1927 by D. M. Clements gave definite information of 937 farm boys out of school and 674 of these boys indicated they would be interested in the opportunity to attend part-time classes in agriculture. J. H. Pearson, when state supervisor of vocational agriculture in Nebraska, said, "Recent surveys in a number of counties in Nebraska show that more than 50 percent of the farm boys between the ages of 14 and 21 are out of school." R. B. Smith, state supervisor of vocational agriculture in Arkansas, said, "Of all the neglected social and economic groups of today, the most neglected consists of those struggling and drifting farm youth between the ages of 14 and 21 who cannot attend a good school—the so-called prospective

part-time student. There are over 3,000,000 of these young people in rural America today and nearly 90,000 in Arkansas alone."

These surveys, showing as they do conditions in a number of states varying widely in farming and general economic conditions, indicate strongly that there are, in every state, hundreds, and in most states thousands, of farm boys of high school age who are out of school. There is no question but that a large percentage of these boys will be the farmers of the future and that to a considerable extent the status of farming in the next generation will be determined by the ability of these young men to aid in the solution of problems of farming. It is apparent that large numbers of these young men can be definitely located by instructors in vocational agriculture and that it is possible to interest a majority of those located in part-time schools in vocational agriculture.

### Good Teacher Necessary

After the location of boys who are desirous of attending part-time schools, the securing of a capable instructor to teach these boys is a deciding factor in influencing attendance. In most states at the present time, the teacher of part-time classes is usually the high school instructor in vocational agriculture. In some states, itinerant teachers have been used to teach special subjects, such as farm mechanics. In Wisconsin, for several years the Wood County School of Agriculture employed an instructor who gave full time to the teaching of part-time schools. At Stoughton, Wisconsin, the past two years the vocational school has employed a man to give full time to teaching part-time and evening classes in agriculture in that community.

In case the high school agricultural teacher conducts the part-time classes, it is, of course, necessary that his school program be sufficiently flexible to permit him to handle the part-time work effectively. It is probable that, at least for some time to come, the part-time classes will in most cases be handled by the high school agricultural teacher. There are no differences between the requirements for teachers of part-time classes and those for teachers of high school agriculture, provided that both have the viewpoint of the preparation of boys for farming occupations. The teacher of part-time classes, as well as the high school teacher, must thoroughly understand the social and economic conditions of farming communities and the technique of farming. He should have spent several years upon the farm in order to have that understanding; he must be thoroughly trained in technical agriculture; he must have a personality

which will be attractive to young men and a spirit of service to the farm boys which will carry him thru many periods of discouragement.

### Personal Visitation

In a brief study of promotional methods in expanding the part-time school program which was made in the north central region in 1927-28, all states reporting part-time schools said that the best means of securing pupils for such schools is by personal solicitation. Consequently, the contact which the instructor makes with prospective part-time pupils is one of the prime factors influencing attendance. The extent to which farm boys who have dropped out of school will again return to school is to a very large degree determined by the confidence which they feel in the ability of the instructor to give them something worthwhile. Unless the boys and their fathers are persuaded that the teacher thoroly understands the problems of farming, they will not be greatly interested in any part-time course which may be offered. In most cases, part-time schools are most easily organized by an instructor who has spent several years in the community and secured the confidence of the farmers. However, several of our largest part-time classes in agriculture in Wisconsin during the past two years have been conducted by young men who are just beginning their teaching experience. In cases where a new man in the community has been able to successfully develop a part-time school, he must have made a personal canvass of his territory in order to meet at least the leaders among those who might be interested in the school.

During the period of organization of the school, there will naturally be the question of what the subject of the course will be. In most cases, as these schools are conducted in Wisconsin, the topic for study is not definitely decided until the time of the first meeting. The interest of the boys will be considerably affected by the extent to which the subject of study agrees with the major interest of the boys. There will, in many communities, be diverse interests represented so that there will not be a unanimous vote for any subject. In this state, Feeding Dairy Cattle, The Care and Adjustment of Farm Machinery, Growing of Legumes, and Improving Soil Fertility are some of the most common subjects for study. It has been well established that the boys will be more interested, will secure greater benefit, and will maintain an interest over a longer period of time when a part-time school is organized on the basis of short units rather than on general aspects of agriculture.

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**Practical Instruction**

Farm boys out of school who, because of interest in improving themselves in farming, come back to school for short unit courses, insist that the instruction in these courses shall be practical. In addition to studying the Feeding of Livestock, the Growing of Crops, or the Marketing of Farm Products, they may want to know how to write a good letter, or how to figure the capacity of bins or mows, but they do not want a lot of theory about agriculture that they cannot put into practice on the home farm, nor are they willing to spend time parsing sentences or studying mathematics which they think they will never use. In outlining any of the courses for students in part-time schools, the needs of the home farms must be foremost in mind. In other words, the course must be based upon the farming practices of the pupils. Farm boys as well as farmers are anxious that the farm income should be improved. Consequently, they are anxious to study subjects which will help them to improve their income and they insist that that point of view be kept in mind. They are confident that if they improve their income they will be able to secure the things which will improve their status of living. In suggesting outlines for agricultural subjects in part-time schools in Wisconsin, we have based our outlines upon such subjects as, Are Our Dairy Cows Making a Profit for Us? How Can We Increase the Profit From Our Herd by Feeding? How Can We Improve the Fertility of Our Farm? What Is the Best Way to Market Our Milk? Of course, in the teaching of any subject, the actual procedure will depend entirely upon the group in the class and the personality of the teacher.

**Supervised Practice**

Real supervised practice in farming is another important factor in holding the interest of farm boys in part-time schools. The supervised practice growing out of these schools must be of such a nature as to appeal to the boys as being of real practical value. In the part-time schools on Feeding Dairy Cattle, herd records are commonly kept as part of the supervised practice work accompanied, naturally, by the elimination of unprofitable cows and more careful feeding and handling procedures with the herd. The accompanying table is the list of supervised practice work selected by a part-time group at Viola, Wisconsin, last winter under the direction of H. M. Eckley, instructor in agriculture.

The introduction of legumes on farms where none were grown before, keeping herd records and improving the feeding of herds, keeping farm records, growing purebred grain or corn, or certified potatoes, beginning the development of purebred herds or using commercial fertilizers, are types of supervised practice work most commonly developing thru the part-time schools. This practice is really of utmost importance as a factor in continued interest and attendance in part-time schools, because in the minds of the boys and their fathers the results obtained in this practice are decidedly indicative of the practical nature of the teaching. Further than that, the supervised practice work takes

the instructor out onto the farms in contact with the farmer and farming problems as well as with the boys. It tends to strengthen his knowledge of farming and greatly increases confidence in agricultural teaching by the farmer.

Supervised practice work must be the backbone of instruction in vocational agriculture no matter what phase of the work is considered. It determines to a large extent the course and the type of instruction given and it grows out of the instruction as new practices are taken on by the boys. Its results are difficult to measure because it may be and often is the means of revolutionizing the farming practices of a whole community. It is necessary, however, that definite improvements in practice result and that a constant check on those practices be maintained, inasmuch as such improvement will be a strong factor in influencing other farm boys to enter part-time schools.

The factors, therefore, influencing attendance on part-time schools are: the location of boys in the community who are desirous of this type of training; the securing of an instructor with the capability and knowledge of farming and farmers which the conduct of a part-time school requires; the establishment of contact by the instructor with the boys to be served; the selection of a topic for study in which the boys are interested; the organization of the teaching material in a practical way based upon the farming practices on the home farms of the boys; and the development of supervised practice work involving better practices growing out of attendance at the school and of such scope as to be recognized by farmers as giving real farming practice.

Name of Pupil	Age	Type and Scope of Dir. Practice
Kieth Robbins ..	21	Herd test; 10 A. corn
George Bee .....	16	5 A. corn
Theron Keplar ..	15	Purebred calf
Rossie Benson ..	21	1 A. barbless barley; applying phosphate and lime on field
Delbert Wanless ..	18	7 A. corn; applying lime and phosphate
Gerald Felton ...	18	Purebred calf; herd test
Paul Bee .....	14	Purebred calf; improving dairy ration for home herd
Ronald Fowell ..	17	Soil analysis on farm; 3 A. alfalfa
Pat Bailey .....	17	Feeding balanced ration to home herd; purebred calf
Urial Dustch ...	15	Working out on farm
Verlin Keplar ...	22	Applying phosphate; 5 A. barley; 3 A. corn
John Felton ....	16	2 purebred Guernsey heifers
Austin Brown ..	14	Purebred Brown Swiss calf; 1 A. purebred corn
Omar Wheeler ..	14	Working out on farm
August Twaddle ..	19	6 A. sweet clover for pasture

**Form Used in Wisconsin**

The following is a copy of a sheet that I got recently from the instructor in agriculture at Oregon, Mr. C. H. Bonsack, while I was attending his school on farm gas engines. This list of directed practice jobs is one which he handed to the boys and upon which they checked the jobs which they expected to carry out. Numbers 1, 2, 3, and 9 on this list are intended to be primarily operative jobs and, altho the list does not so indicate, the others are planned to be primarily managerial jobs involving the decisions as to when to use anti-

freeze solutions, when to clean a water cooling system, when to change oil, and so forth.

**OREGON PART-TIME SCHOOL**

Student's Name \_\_\_\_\_

There are certain practices that grow out of a course in gasoline engines which I believe we can make use of in a practical way at home during the year. I have listed here some things which I think one should be able to do or at least attempt after he has had a course of this kind. Please look them over and check those you think you will have an opportunity to try this year.

- I. Grind Valves—
  - 1. Gas engine .....
  - 2. Auto engine .....
  - 3. Tractor engine .....
- II. Remove Carbon—
  - 1. Gas engine .....
  - 2. Auto engine .....
  - 3. Tractor engine .....
- III. Tighten Bearings—
  - 1. Mains:
    - a. Gas engine .....
    - b. Auto engine .....
    - c. Tractor engine .....
  - 2. Connecting rod:
    - a. Gas engine .....
    - b. Auto engine .....
    - c. Tractor engine .....
- IV. Using Anti-Freeze Solution—
  - 1. Gas engine .....
  - 2. Auto engine .....
  - 3. Tractor engine .....
- V. Cleaning Water Cooling System—
  - 1. Gas engine .....
  - 2. Tractor engine .....
- VI. Changing Lubricating Oil—
  - 1. Auto engine .....
  - 2. Tractor engine .....
- VII. Keeping Motor Surroundings Clean—
  - 1. Auto engine .....
  - 2. Tractor engine .....
- VIII. Cleaning Fuel Line and Catch Bowls Systematically—
  - 1. Auto engine .....
  - 2. Tractor engine .....
- IX. Adjust Breaker and Spark Plug Points Properly—
  - 1. Auto engine .....
  - 2. Tractor engine .....
- X. Check Battery for Water Supply and Charge—
  - 1. Auto engine .....
- XI. Determine Proper Pulley Size on Driven Machines to Get Right Operating Speed—
  - 1. Thresher .....
  - 2. Feed grinder .....
  - 3. Silo filler .....
  - 4. Corn shredder .....
  - 5. Wood saw .....
  - 6. Add others:
    - a. ....
    - b. ....
    - c. ....

**Progress in Methods of Teaching**

(Continued from page 152)

tained. Also, it has been found that the interest developed in pupil participation in active thinking offsets to a large degree the effects of fatigue from equally long application at more abstract and routine work. The vocational teacher is essentially a stage setter when he provides participation on a real job basis. The unity of his presentation is often seriously affected by an adjustment to academic periods.

Instruction in farm mechanics has considerably improved during recent years. However, there exists considerable difference in the attention which is given to this phase of the work in the different states. This difference in emphasis is for the most part justified, due to differences in types of farming and the need for farmers in certain sections to do their own repair work rather than hire it done. The old manual training idea of developing elementary skills has largely given away to emphasis on direct construction and repair jobs on the farm. Considerable attention is being given also, to the overhauling and repairing of farm equipment and motorized machinery.



# Evening Schools



## Dairy Production and Marketing at Reynoldsburg, Ohio

A. C. KENNEDY,  
Reynoldsburg, Ohio



A. C. Kennedy

WITH the experience of seven part-time or evening schools conducted in another community I determined to put forth more effort this year in the organization and conducting of an evening course in a new community in which I am now working.

Our enrollment for a Young Men's Farming Club was secured by the aid of the F. F. A. boys and other agencies usually resorted to, such as personal visits and by soliciting thru each other. We called our group of young men together and explained the aims and purposes of a Young Men's Farming Club. As a result of this meeting an organization of 14 members was formed and the officers elected.

The most important farm enterprise in this community is dairying and at the present time no enterprise is giving the farmer more grief from a production standpoint, due to the drouth conditions of the past summer or from a marketing standpoint, due to the surplus of dairy products. With this situation facing the group it was an easy matter to decide what subject would be of interest to the whole group.

In most of the other courses I have conducted we spent much of our time working on ways of increasing our production. We have attacked this problem from another angle and first made a careful study of the different methods of marketing milk. We found that members of our group were selling milk in the following ways:

1. Whole milk on a base price.
2. Whole milk on an established price for the entire output.
3. Bottled whole milk direct to the consumer.
4. Cream.
5. Butter.

These five methods of marketing within our own group certainly presented a situation that provided ample material for discussion. An ideal situation for the conference plan of conducting a discussion.

Since we are all interested in getting the most for our product we compared the different ways of marketing and calculated the financial returns received from each method. The amount of labor involved in each case was also taken into consideration. Data has been presented, conclusions have been reached. A decision for the entire group has not been made but some individuals have decided to make some changes in both their production and marketing methods. We have had 12 meetings and

have practically completed our course in dairying as it was originally organized but we will continue to discuss timely topics on the subject from time to time as new problems present themselves.

Each member of the course is testing his cows and keeping feed and production records on each cow. Some have changed their plan of marketing. Three of our members are selling all of their dairy and poultry products direct to the consumer. This has resulted in more money for the producer at a less cost to the consumer.

The Young Men's Farming Club is working with our local Grange in sponsoring an independent Farmer's Institute and Community Fair. Several exhibits of an educational nature on dairying and methods of marketing milk will be a feature of the exhibit work.

Our group is planning to take up a course in farm shop work next. Demonstrations will be given of each type of shop work and each member will bring in jobs that provide practice along each of these lines and also work that needs to be done on their home farms.

## Progress in Evening Schools

(Continued from page 155)

present themselves. This possibility of evening work has been developed in several states but overlooked in many more.

The enrollment in evening schools in Iowa, Virginia, Mississippi, Rhode Island, and South Carolina exceeds that in all-day work. Eighty-six and five-tenths percent of those enrolled in evening schools in the Southern Region completed a program of supervised or directed practice.

There are improvements which should be made to further develop the work. First, the content of the evening school must be more carefully selected to meet

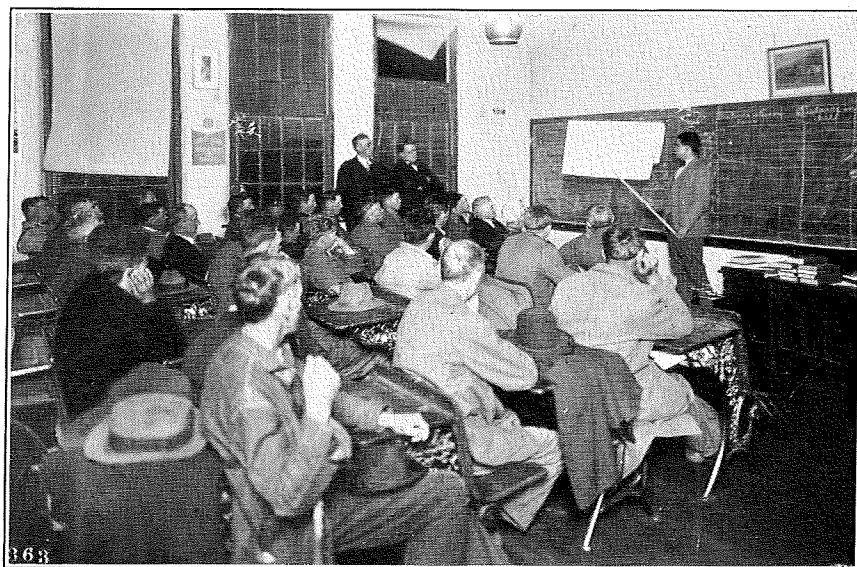
the needs of those individuals enrolled in the school. This means a survey of the farm practices of each individual. When these facts are obtained they should then be compared with recognized standard and approved practices to determine the need for instruction relative to them. Second, methods or teaching procedure which use experiences of the group and experiment station results in such a way that members of the group think thru the situation and come to their own conclusion should be more universally adopted. Third, supervised or directed practice should give account of each major teaching unit with the new or improved practices adopted by each member of the group and resulting from the evening school.

Part-time work has not fared as well in its development as has the evening school. This, no doubt, is due partly to the fact that it has not been given as much study and promoted as intensely as the evening school. Adjustments in the organization of this type of work should lead to further expansion.

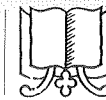
The work increased in two regions and decreased in the other two during 1930. There was a decrease in the total enrollment for the first time since the work was started in 1924. South Carolina, Ohio, New York, Minnesota, Georgia, and California had good enrollments in part-time schools. Since the states which are doing part-time work rather extensively are so scattered there seems to be no section of the country where it can be more easily developed than others.

A type of part-time work where the boys meet in the evenings at 7:30 or 8 o'clock seems to present an opportunity for development of that program, the present trend being toward the evening meetings.

The outlook for both evening and part-time work for the year looks very encouraging. There are indications of an increase in both types of work.



Men Are Appealed to When the Problem of Making a Living Is to be Studied



## Individual Instruction in Animal Husbandry

GLENN W. ZELLER, Teacher of Agriculture, Castalia, Ohio

**T**HE vast differences in the ability of students in the same class to do school work, confronts teachers with difficult teaching problems. Every teacher of vocational agriculture either consciously or unconsciously makes adjustments of one sort or another to meet the situation created by these individual differences. We do not expect every student in the class to accomplish the same amount of work in the same amount of time.

To meet the teaching problems caused by the individual differences in students a plan of individualized instruction in animal husbandry was started in Erie County in 1928. The writer organized the course into 21 different units, most of which could be stated in the form of a specific farm job. For each one of these jobs, contract assignment sheets were prepared. These contracts were mimeographed in sufficient number to furnish a copy to each student. The students were allowed to plan their work, budget their time, and to advance at their own rate.

### Contract Assignment

The following is a sample of the contract assignments prepared and used by the writer:

#### ASSIGNMENT I PRINCIPLES AND PRACTICE OF POULTRY CULLING

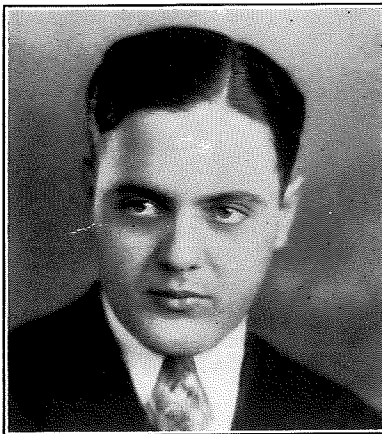
Culling may be defined as the act of selecting and discarding something which is inferior or does not meet the standard of one's approval. Most boys remember the time when they sorted their marbles and discarded the ones that were broken and checked. Some of the boys even discarded all the clay marbles and kept only the glass ones. The boy who kept only the glass marbles had a different standard of approval than did the boy who kept both clay and glass marbles. In each case, however, the boys culled their marbles. Likewise poultry culling refers to the sorting and discarding of hens which are inferior and do not meet the owner's standard of approval. For our job this week let us try: (1) to agree on what should be our standard of approval for a hen; (2) to find out whether there is any real need for culling in our community; (3) to study the factors underlying the principles of culling; and (4) to actually do some culling in order that we may understand how it is done.

*Problem I.* What should be our standard of approval for a laying hen?

Most poultrymen have certain standards such as production, health, size, and color markings, which birds must meet before they are allowed a place in the flocks. In this problem we shall try to set up our standards of approval on production. Our measure of a hen's production will be the number of eggs

laid by her in one year.

The poultry extension workers of Ohio have set their standards of approval at 160 eggs per hen per year. From their records they have found that it takes approximately 100 eggs per year to pay for the average hen's feed.



Glenn W. Zeller

A survey in Margaretta community in 1929 shows that 94 flocks with an average of 68 hens each laid only 108 eggs per hen. A similar survey was conducted in the Milan community. Forty-four flocks averaging 83 hens per flock show a production of 152 eggs per hen.

1. If it took 100 eggs to pay for each hen's feed in the Margaretta community and eggs sold at an average of 28 cents per dozen, how much did the 94 farmers receive above feed cost for each hen?

2. How much did the average farmer receive above feed cost on his flock?

3. How much did the community receive above feed costs on their hens?

4. Answer questions 1, 2, and 3 for Milan community.

5. Is the poultry enterprise in Milan and Margaretta communities as profitable as it should be? Give reasons for your answer.

6. What is your opinion of the State's Standard of Approval? What should be your standard of approval in your flock?

*Problem II.* What are the reasons for culling in our community?

1. Why do you think the flocks in Margaretta community laid only 108 eggs per hen in 1929? Give at least three good reasons.

2. Prescribe the remedy for the factors contributing to the low egg production in Margaretta community.

*Note:* There are certain points about the hen which tell us a true story about her laying record and her ability to lay eggs in the future. Therefore, it is not necessary to count each egg a hen lays or even wait until she has laid before determining whether or not she is a good hen.

*Problem III.* What does pigmentation tell us about the laying of a hen?

1. Define pigmentation, vent, beak, ear lobes, eye-rings, shanks.

2. Where are the color changes found?

3. What are the causes for color change?

4. In what order does a hen bleach?

5. In what order does a hen pigment or re-color?

6. Describe the pigmentation of a pullet which has laid heavily for three months.

7. Describe the appearance of a hen which has laid for four months and then rested three weeks.

*Problem IV.* What is the difference in the body conformation of a laying and a non-laying hen?

1. Describe the condition of the comb of a layer and a non-layer.

2. Describe the condition of the vent of a layer and a non-layer.

3. Describe the condition of the abdomen of a layer and a non-layer.

4. Explain the difference in keel and pelvic bones of a layer and a loafer. What are the distances between the keel bones; the keel and pelvic bones of the layer and non-layer?

*Problem V.* What is the relation of moulting to production?

1. When does moulting take place naturally?

2. What are the causes for moulting?

3. In what order are the primary feathers lost?

4. How much time is necessary for new feathers to grow?

5. How much laying will a hen do at the time of re-coating?

*Problem VI.* What is the relationship of head characteristics and production?

1. Make a study of head characteristics and their relation to production in Kansas Circular 147.

2. Explain the four head-type characters.

3. How helpful are these head characters in predicting production?

4. How may these characters be used in making male selection?

*Problem VII.* Conclusions.

1. Outline a culling program indicating when and how often the culling should be done. Give reasons for your decisions.

*Problem VIII.* Reading the laying record of a hen.

1. You will be assigned a hen in the laboratory. Study thoroly the body characteristics, pigmentations, moulting stage, and head points. What is the laying history of the hen? Is the hen laying at present? What are the possibilities of future laying? Secure the laboratory sheet from instructor and answer the questions found there.

*Problem IX.* Culling practice.



I. On a date agreed upon the class will cull a flock of poultry.

### Additional Problems

(Optional)

*Problem A.* Give the standard of perfection and disqualifications of the following male birds: White Leghorn, White Wyandotte, Barred Rock, and Rhode Island Red.

*Problem B.* Cull 50 or more birds at home.

*Problem C.* Prepare a speech or a paper upon the necessity of culling the home poultry flock.

*Problem D.* Report any news articles you find on poultry culling.

*Problem E.* Give demonstration upon preparing a bird for show.

### References

- Ohio Bulletins Nos. 93 and 65.  
Kansas Circular 147.  
International Harvester Bulletin, pages 45-51.  
Quaker Oats Company Bulletin.  
North Carolina Circular 156.  
Kentucky Circular 167.  
U. S. D. A. Bulletins 1112 and 1116.  
Texas Bulletin 295.  
Rice and Botsford, *Practical Poultry Management*, pp. 1-30, 432-436.  
American Standard of Perfection 1927 Edition.

### Presenting the Assignment

A mimeographed copy of the contract should be given to each student and the teacher should go over it carefully with the class. The students should be made to feel that they are about to learn how to do an important farm job. The teacher should stress the important points which are to be studied in the assignment. He should suggest methods of study or of attacking the different phases of the problem.

The plan which is in use in the Margaretta school provides for the class, as a whole, to participate in the discussion only on the day when the contract is presented. At this time every effort possible is made to draw on the individual experiences of the boys in order that the whole class may profit from this information. The boys are instructed as to which questions in the assignment should be written out and put into their work books. The time required for properly presenting an assignment, such as the above one, is about ninety minutes. The assignment covers from 10 to 12 days of work.

### Administering the Work Individually

After the assignment is presented to the class as a whole the students work individually and advance at their own rate of speed. It is noticed that the above assignment is divided into nine different problems. A progress graph sheet is kept on the bulletin board, on which the students register the problems completed. After the work has been accepted as satisfactory the teacher also marks the graph in a color or symbol different than that used by the student. As soon as a student has finished and turned in the written work on the first problem, he marks his graph and holds himself in readiness for a conference on this problem. To eliminate any delay, however, the student immediately begins work on the second prob-

lem. The teacher examines the written work and finds it satisfactory he calls the students who are ready for Problem I together for a conference. Quite often it occurs that there is but one student called at a time. In case the student contributes satisfactorily to this discussion the teacher marks the graph in red which means that the student's work on this problem has been approved.

After a student finishes the required problems he is permitted to continue with the optional problems. When the last student has finished the required problems the final objective test on the assignment is given and the next contract is presented.

### Merits of the Plan

The vocational agricultural teachers of this county feel that the greatest asset of the plan is that it adequately takes care of the individual differences which students have in their time rate of doing work. If we grant that learning is a self-active process, or that it must be done by the learner, we realize that teaching cannot be hurried. In order to keep the bright students occupied under the class recitation plan, material is usually gone over so rapidly that the slower students do not have sufficient time for self-activity, or learning. The individual plan allows ample time and stimulates sufficient self-activity necessary for each student to master the work. At the same time it automatically eliminates much of the wasted time which usually occurs in the ordinary class recitation. Bright students are not bored by listening to the oral participation of the slow students. Likewise the latter are not dominated by the responses given by the more brilliant students. Each one is doing a job centered about himself.

In addition to taking care of the time adjustment, the plan makes it possible to meet within limitations, the individual subject matter needs of students. Those who wish to be poultrymen may do only minimum requirements in the swine and other enterprises, and then spend their remaining time in enriching their knowledge about the poultry industry.

The plan is well adapted to efficient project teaching. Boys with the same project interests can be called together in group conferences and receive information which vitally concerns them but is of little interest to the other boys in the class.

Under this plan the student derives a great deal of satisfaction from his efforts. By having clearly presented to him at one time an assignment covering two or three weeks of study the student is able to see his job as a whole and he also realizes that there is something to be gained, which, in turn furnishes the motive for the work.

In order to progress rapidly under this plan the student must develop self initiative, ability to organize, and ability to think. It is evident in this system that the teacher must take his place in the background and not as the star performer. Each student is running a show of his own in which he plays the leading role. The teacher and other students are the minor accessories needed to make his setting complete.

indications are, however, that many relatively insignificant problems have been studied. We know that some of the most vital problems in the field have been inadequately studied or left untouched.

The feeling of the committee is that the needs for studies should be pointed out and that some thought should be directed to determining what problems should be studied. The committee proposes to formulate a program of needed research.

The committee will use this program to guide persons, who desire to make a contribution, into channels where research is needed and assist them in any way possible to make these needed studies.

This committee consists of H. M. Hamlin, Iowa, chairman; L. D. Klemmedson, Arizona; F. W. Lathrop, Federal Board for Vocational Education; R. M. Stewart, New York; W. F. Stewart, Ohio; J. T. Wheeler, Georgia.

\*Cox, O. C. Evening School Instruction in Virginia. Masters Thesis. Virginia Polytechnic Institute, 1930.

Banyard, C. L. A Technique for Measuring the Effectiveness of Agricultural Evening Schools. Masters Thesis. Iowa State College, 1930.

Mobley, M. D. An Evaluation of Evening Class Instruction in Terms of Changed Practices. Masters Thesis. Cornell University, 1930.

†Woods, R. H. A Method of Determining Relationship Between Types of Farming Content in Vocational Agriculture and Technical Training of Teachers of Agriculture. Doctors Thesis. Cornell University, 1930.

Mitchell, F. T. Proposed Plan for Training Negro Teachers of Vocational Agriculture. Doctors Thesis. Cornell University, 1931.

Jones, D. C. The Curriculum of the Agriculture College, Based Upon a Study of Practices in the Land Grant Colleges. Masters Thesis. Cornell University, 1930.

‡Wolford, Feaster. A Study of the Basic Factors Affecting the Need for a Prospective Development of Vocational Agriculture Departments in the Allegheny Region of West Virginia. Masters Thesis. West Virginia University, 1929.

§Field, A. M. An Evaluation of Certain Phases of Theory and Practice in the Supervision of Instruction in Vocational Agriculture With a Suggestive Program of Improvement. Doctors Thesis. Cornell University, 1929.

¶Stewart, W. F. Records and Reports for State Supervisors of Agricultural Education. Doctors Thesis. Teachers College, Columbia University, 1930.

||Clark, O. M. College Achievement of Pupils Admitted on the New York Academic Diploma in Agriculture to the New York State College of Agriculture at Cornell University. Masters Thesis. Cornell University, 1930.

Farmer, A. B. The Effect of Some Features of School Training on the Performance of Freshmen in Virginia Colleges. Masters Thesis. Virginia Polytechnic Institute, 1929.

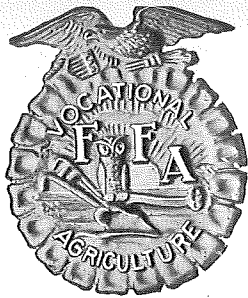
McCalley, Carl R. A Study of the College Records of Persons Who Have Studied Vocational Agriculture in High Schools. Masters Thesis. Iowa State College, 1930.

### Progress in Negro Schools

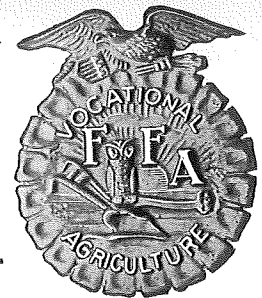
(Continued from page 156)

tions has become very much interested in this work and has agreed to assist the different states employing a farm shop supervisor and equipping a truck with agricultural tools so that the supervisor may visit the schools and assist the teachers in charge of vocational agriculture to better plan and organize the farm shop work. Several of the states have taken advantage of this offer and have farm shop supervisors who are doing excellent work with the Negro vocational teachers of agriculture.

A great many people think that the income of Negro vocational pupils of agriculture from projects and other supervised practice work is low and that the percent of completion of supervised practice work is small. However, they make a very good showing. The per pupil income from supervised practice for the year 1928-29, the last year reports are available, is \$96.38, and the percentage of completion is 83.1.



# Future Farmers of America



## Radio Broadcasting Contest Features Mid-Winter Meeting of New York Future Farmers

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

**E**IGHT chapters of the Association of Young Farmers of New York participated in a radio broadcasting contest as a feature of the mid-winter and leadership training school of the association held in connection with the annual Farm and Home week at the State College of Agriculture during the period February 9-15. The delegates from the Trumansburg chapter were adjudged the winners in the contest, which included delegates also from Naples, Bath, Albion, Horseheads, Wolcott, Madison, and Homer. Each group presented a 20-minute program including business activities, yearly chapter program, educational features, and considerable humor of special interest to farm folk. The boys went on the air in the early afternoon over station WEAI, the official station of Cornell University. The first prize was a "Little General" radio set contributed by the local dealer of the General Motors Corporation.

Following is a record of the program presented by the Trumansburg Future Farmers:

*President:* The meeting of the Trumansburg Vocational Farmers will please come to order. We will listen to the minutes of the last meeting.

*Secretary:* The meeting of Trumansburg Vocational Farmers was called to order at 8 p. m., October 15, in the high school auditorium. The minutes of the last

meeting were read and approved. The treasurer reported a balance on hand of \$96.08. The treasurer's report was accepted by vote of members. The membership committee reported by reading a list of names of 33 young Farmers who were eligible to become members, but who had not yet paid their dues. The chairman reported 74 paid members to date. The program committee was instructed by President Wright to be prepared to report on the year's program at the next meeting. It was moved and

seconded that the chapter buy a carload of fertilizer co-operatively. After considerable discussion, it was moved to lay the motion on the table until a special committee, appointed by the president, could investigate and report at the next meeting. Motion carried. The president appointed John Roberts, Gordon Dean, and Wheeler Grove to investigate and report at the next meeting. There being no other business, the meeting adjourned by vote of the members at 9:05.

*President:* Are there any additions or corrections to the minutes as read? If not, they stand approved as read. We will listen to the report of the treasurer.

*Treasurer:* Balance on hand at last meeting, \$96.08. Received for dues for 24 new members, \$20.40. Total receipts,

be accepted. All those in favor of this motion, signify by saying "I."

*All:* "I."

*President:* Opposed—The motion is carried. Has the membership committee any report? Mr. Medlock, may we hear from you as chairman of the membership committee?

*Medlock:* The membership committee at the last meeting read a list of 33 young farmers who had not yet paid their dues. After the meeting, we got together and made up a letter to send to these men, asking them to send in their dues. We also gave the list of names to the district chairmen, and told them to get on the job. The result is that we now have the dues from 24 of these 33 men. This makes a total membership today of 98 members.

*President:* I think the membership committee is to be congratulated on the drive it is making. Has the program committee a report?

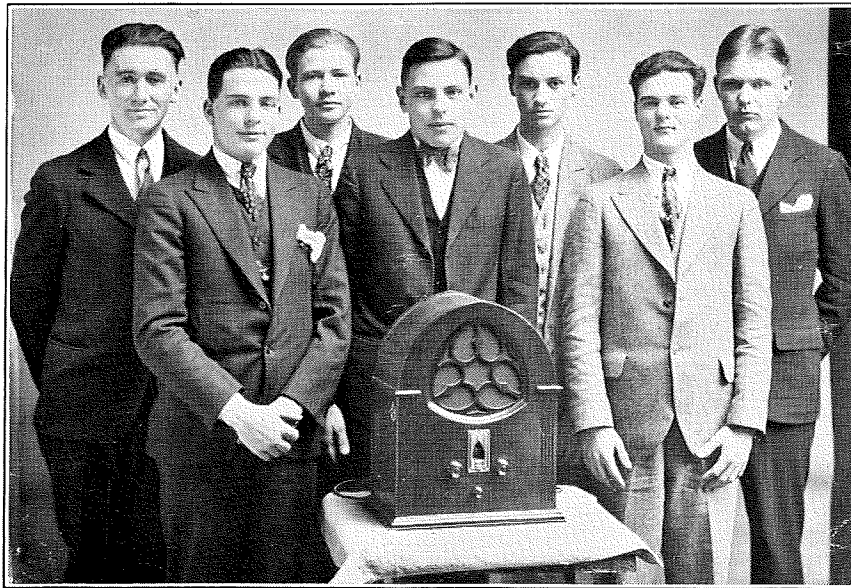
*Chairman:* (Agard) Mr. President, our committee has had rather a hard time getting this report ready. We planned to have the meeting on Monday night, but Charles and Carl couldn't come, as they broke a wheel on their car and had to wait until they could sell eggs enough to buy a new one. Finally we met on Thursday night, after the Grange chicken pie supper. After the chicken had time to

nourish our brains a little while, we got out what we think is a pretty good program. I'll read it:

*December Meeting*—Two reels of educational movies. Giving of Green hand degree to class of candidates.

*January Meeting*—Discussion of Seneca County Agricultural advisory committee. We have secured Dr. Dalrymple, Seneca County Farm Bureau manager, to tell us about the work of the committee.

*February Meeting*—For this meeting



*The Winning Future Farmer Broadcasters of Trumansburg, N. Y.*

Left to right: Leon F. Packer, teacher of agriculture and chapter adviser; John Roberts; Paul Williams; William Agard, acting president; Donald Cretzer; Kenneth Medlock; and Dean Chase. The "Little General" radio will be installed in the agricultural classroom at Trumansburg.

\$116.48. Expenses, state dues for 98 members at 35 cents each, \$43.43. Refreshments for last meeting, \$2.45. Total expenses, \$45.88. This leaves a balance on hand of \$70.60.

*President:* You have heard this report of the treasurer. What is your pleasure regarding it?

*Chase:* I move that the report be accepted.

*Medlock:* Second the motion.

*President:* You have heard the motion made and seconded that this report

and attend in a body the semi-annual meeting of the Association of Young Farmers of New York, which will be held Friday afternoon, February 13, at 3 p. m., in the Dairy Building, at the College of Agriculture.

*March Meeting* — For the March meeting we plan to have an extension speaker from the college who will give us some first-hand information on buying and using fertilizers for our crops.

*April Meeting*—For the April meeting, we plan a short mock trial and following that, a brief talk by a Master Farmer on how to make farming a paying business.

*The May Meeting* will be entertained by means of a debate between two teams on the subject, Resolved that beans pay better than potatoes in the area immediately around Trumansburg. There will also be some reels of moving pictures of an educational nature.

*The June Meeting* will be held in Jacksonville Grange Hall in connection with the Grange program. It will consist of the annual prize speaking contest, by which we select our speaker for the sectional contest.

*In August* we will hold our annual picnic and baseball game.

*The October Meeting* will give place to reports from the judging teams and delegates to the state fair at Syracuse. Plans for the annual banquet will also be discussed. We shall also have a speaker on some agricultural topic at this meeting. There will be the usual business meeting every time, and for the meetings held at the high school, a basket ball game after the meeting, and refreshments after the game. That is all of our program, Mr. President.

*President*: The program committee has certainly laid out a fine program. We will now open under old business, and discuss this report. What do you wish to do with it?

*Chase*: What is the reason for holding this contest in Jacksonville Grange Hall? Why not hold it in the High School auditorium as we do our other programs?

*Chairman*: We thought that by holding our contest in a Grange Hall with all the Grange people present, we would get some very good advertising, and the speaker would get some experience before an audience.

*Chase*: Do you think the Grange people would like to be the goats?

*Agard*: I talked with the Grange Master and told him all the speeches would be on agricultural topics, and he said that it would make a very good program for the lecture hour. These speeches, even if they are given by some of you fellows, will have to be good or you can't give them.

*President*: Is there any other discussion? The program sounds pretty good to me. Guess we'll have to feed some of those other committees on chicken pie for an experiment.

*Crester*: I am of the opinion that the program should be adopted as read, and I will make such a motion. (Roberts seconds.)

*President*: You have heard the motion that the program be accepted as read. Is there any discussion? If not, all those in favor of this motion will manifest by saying "I."

All: "I."

*President*: Opposed—Motion is car-

ried.

*President*: Mr. Medlock.

*Medlock*: How about that fertilizer buying? Are we ready to act on that motion we made last meeting?

*President*: The motion to buy fertilizer was laid on the table at the last meeting until the committee could investigate.

*Medlock*: Then I move that this motion be taken off the table and the discussion opened with the report of the committee.

*President*: It has been moved that the motion to buy fertilizer be taken from the table and the discussion opened by the report of the fertilizer committee. Is there any discussion? If not, all those in favor of this motion manifest by saying "I." Opposed, the same. Motion is carried. We will now listen to the report of the committee.

*Roberts*: The fertilizer committee met shortly after the last meeting, and agreed that it would be necessary to find out first whether fertilizer could be bought more cheaply by the carload, and how much. And secondly, about how many fellows would take advantage of the saving. We approached several dealers, including the local G. L. F. man, and got quotations on carload lots. We found that we could get 16 percent acid phosphate at a saving of \$2 per ton by getting it in car lots and in bulk thru our local G. L. F. dealer. The saving on complete fertilizers ranged from \$4 to \$5 per ton, depending on the price. We were not able to do any better than this at any of the other dealers. We next approached as many of the members as we could see during the month, and found that at least two carloads of acid phosphate would be used by the members we approached. So, Mr. President, two things seem to be true. First, we can get a saving, and second, enough fertilizer is used by members to make it worth while to buy it together. I think that is all we have to report.

*President*: You have all heard this report. What do you think of the proposition? Let's hear some real discussion.

*Chase*: Mr. President. (President says Mr. Chase.)

*Chase*: If we buy in bulk does that mean that someone will have to shovel all that fertilizer into bags before it can be taken home? That's a lot of work.

*Agard*: What's the matter, Fatty. Does work scare you?

*Roberts*: Yeah, he'd like to have the railroad company deliver the fertilizer to his place and spread it on the land for him.

*President* (using gavel): You fellows will please come to order. To answer your question Mr. Chase some arrangement will have to be made for bagging and hauling the fertilizer to your place, and that will probably be your job. Is there any other discussion?

*Medlock*: It seems to me that it will make a lot of detail to be taken care of, and after all it will hardly be worth while to trouble to save \$2. I shall use about six tons, and I get the fertilizer from our dealer and have to do nothing except haul it and pay for it. It is worth \$12 not to have to fuss and bother.

*Chase*: Mr. President. (President recognizes him.) I don't agree with Mr. Medlock. Times are hard enough on our farm so that I'd be willing to go to quite a lot of bother to save \$12. However, I

work if the thing is well organized. Some of the fellows could easily be on hand and help bag the fertilizer at the car—enough so that no one would have to overwork. Then every fellow who came for his fertilizer could help bag for a while. Or maybe we could afford to hire a man to be on the job all day and see to things, and bag the fertilizer for us. One man with that new-fangled bag holder we have over in the shop could do a lot of bagging, and every fellow who came for fertilizer could pitch in and help.

*Williams*: Mr. President. (President recognizes him.) Mr. Chase is right. In times of low prices like these, every farmer must cut costs as low as he can. And here's one way to do it. Why, I'd shovel the whole carload for \$12, if my pocketbook is as flat then as it is now. Besides, I could save \$16 on the acid phosphate I would use. Mr. President, I move that we buy this fertilizer.

*President*: We already have one motion on the floor, and that is the motion that was taken off the table, so your motion is out of order, Mr. Williams. Mr. Secretary, will you please read the motion again as it was laid on the table?

*Secretary* (reads): It was moved and seconded that the chapter buy a carload of fertilizer co-operatively.

*President*: This motion is now before us. Is there any further discussion before we proceed to the question?

*Chase*: Mr. President. (He is recognized.) It seems to me that the motion is rather indefinite. It does not say what kind of fertilizer, nor how it should be bought, and it doesn't take into account the fact that we may want more than a carload. Why, without any more instructions than that, the fertilizer committee might go ahead and order a carload of dried blood or ground bone, or for that matter, the whole cow, for all we know.

*Roberts*: Mr. President. (He is recognized.) Mr. Chase evidently doesn't have much confidence in the brains of this fertilizer committee. However, I think his criticism of the motion is O.K. It should be more definite.

*Crester*: Mr. President. (He is recognized.) I move that the motion be amended to read that the fertilizer committee be empowered to order at least one carload of 16 percent super phosphate in bulk thru the local G. L. F. dealer, provided enough members subscribe. (Williams seconds.)

*President*: The motion has been made and seconded that the main motion be amended to read that the fertilizer committee be empowered to order at least one carload of 16 percent super phosphate in bulk thru the local G. L. F. dealer, provided enough members subscribe. Is there any question?

*Williams and Chase*: Question.

*President*: All those in favor of this motion please manifest by saying "I."

*Members*: "I."

*President*: Opposed, by saying "No."

*Medlock*: No.

*President*: The motion to amend is carried. Is there any further discussion before we proceed to vote on the motion as amended? (Pause.) If not, all those in favor of the motion as amended, please manifest by saying "I."

*Members*: "I."

*President*: Opposed.

(Continued on next page)

Members: (weakly): No.

*President*: The motion is carried. We will buy some fertilizer. Now it is up to your committee, Mr. Roberts.

*Medlock*: Who will take care of the details if this fertilizer is bought? I still think it is a lot of fuss and bother.

*Williams*: Mr. President. (He is recognized.) Of course there will be some trouble, but everything worth while needs to have some work done on it. But it does seem to me that a good deal of detail has been left for three fellows to attend to. I would like to make a motion that three other members be added to the fertilizer committee and that these six be responsible for attending to the details of buying the fertilizer. (Medlock seconds.)

*President*: You have heard the motion that three other members be added to the fertilizer committee, and that these six be responsible for attending to the details of buying the fertilizer. Is there any discussion? If not, all those in favor of this motion manifest by saying "I."

*Members*: "I."

*President*: Opposed? The motion is carried. That doesn't mean, however, that the members of the committee may not call on the rest of you to do some work at any time. We must all back the committee and make this a success.

*Members*: We're ready.

*President*: Is there any more old business? If not, we'll open under new business. Is there any new business?

*Chase*: Mr. President. (Recognized.) Now, that this fertilizer business is out of the way, I want to bring up the matter of buying certified seed potatoes. A good many members grow potatoes, and it is generally known that nothing pays much better in the potato game than good seed. Why couldn't everyone in this chapter who grows potatoes get his seed thru co-operative buying in the chapter? Don't let anybody out. I'd like to see a motion compelling every member to buy certified seed potatoes next spring.

*Crester*: Mr. President. (Recognized.) I think it would take more than a motion to compel every member to do as Chase says, but the idea sounds good. I move that a committee be appointed to investigate, just as was done with the fertilizer, and report at next meeting. (Williams seconds.)

*President*: You have heard the motion that a committee be appointed to investigate the possibility of buying certified seed potatoes co-operatively. Is there any discussion? If not, all those in favor of this motion please manifest by saying "I." Opposed "No." The motion is carried. I will appoint Ralph Yonge, Alton Worden, and Ralph Pierson on this committee. Is there any further business? If not, a motion is in order for adjournment.

*Medlock*: Mr. President. (He is recognized.) I move that we adjourn.

*President*: If there is no objection I will declare the meeting adjourned.

## Progress in Teacher Training

(Continued from page 154)

changes in personnel and position during the year. It can be but a source of gratification to teachers and other workers in the field to note the many changes that mark professional ad-

vancement. It is significant to note the trend in the direction of added vocational experience and finer training of the new men moving into teacher, teacher-training, and supervisory positions.

3. There is a marked trend toward increased professional and technical preparation. An increasing number of workers from all categories are to be found in the graduate schools of the country. It is probably a safe statement to make that agricultural education because of its recent development and emphasis upon occupational experience, has not had the same opportunity to provide advanced professional programs as is to be found in the more general types of education. Again, it appears that in a few isolated cases there is a tendency to use official time for personal advancement rather than for specific preparation for the job at hand.

In calling attention to the year in teacher training, it is not to be assumed that all of the above developments have occurred in a single state, but that these developments are noted in enough instances to appear significant. Another year may see developments to more clearly define the trends noted at this time.

## Progress in Subject-Matter

(Continued from page 153)

4. Agricultural economics material available from the U. S. D. A.

5. Regular publications of the U. S. D. A. available to vocational workers.

6. Report on shifts in farming in the United States.

7. Agricultural Outlook Reports.

8. Recent publications on agricultural education from the Federal Board for Vocational Education.

9. Federal Farm Board publications.

A few states have undertaken work for the purpose of supplying subject matter to teachers and of improving its selection and use among them. The most outstanding state work of this type has been carried on by the teacher-training department of Clemson College, South Carolina. Thru the efforts of this department and under its direction, experimental data on various enterprises have been compiled for South Carolina conditions. Material in the form of a regularly published bulletin supplemented by charts, graphs, and mimeograph material has been prepared for the hands of teachers. Data for this purpose is secured from nearby experiment stations and from various national sources.

It seems that there should be an effort put forth by all state offices and teacher-training departments to determine the needs for subject matter and get into the hands of the teachers the best material available which applies to conditions within the state. Every teacher, in turn, should make it his business to obtain reliable local agricultural data. This teaching material, combined with that made available from national agencies, should place any teacher in a splendid position to offer effective systematic instruction in vocational agriculture classes of all types.

It is not the function or purpose of the Agricultural Education Service of the Federal Board for Vocational Edu-

cation to engage in the production of technical, agricultural subject matter, but rather to attempt to organize authentic technical material in teaching form and to suggest effective ways of using it in vocational agricultural instruction. Suggestions as to the kind and type of subject matter for which there is a specific need will be gladly received from those in the field.

## Progress in Supervised Practice

(Continued from page 155)

terms of the supervised practice work. Boys learn to farm from the work which they do plus the instruction they receive in the problems they encounter.

It is also believed that some improvement has been made in record keeping. Here again, reports from the states and observations made in the field indicate that still too little attention is given to this all-important phase of the vocational program. The objective of record keeping is to provide information of a managerial nature which may be helpful in future plans, and records should be kept to supply this information. Pupils will not keep records for records' sake and pupils are not going to be overly careful in the records which they are simply to hand in to the teacher, but when the vocational boy is graded on his supervised practice work as it shows up in an analysis of his records, then it is believed that pupils will show more care in keeping these records.

Probably the last observation in connection with the supervised practice work is that of the pupil's supervised practice program. There are at the present time two schools of thought in regard to this question. There are those who feel that the supervised practice program should deal with those problems upon which improvement on a certain farm or the home farm may be realized. In other words, the pupil should include in his program such problems as deal with the improvement of seed, soil fertility, use of machinery, and so forth, for the sake of the benefit that may be derived by the farm family from which the boy comes. There is that other school of thought which maintains that the pupils' supervised practice program should be built in such a way that it will lead a boy into farming by starting him out with a calf and thru the three or four years in the high school develop this into a small dairy herd, or with some baby chicks leading into commercial poultry, and so forth. Outside of these two distinct schools of thought there are still those who have minor objectives, such as a thousand dollars in the bank at the end of the vocational period, the development of certain skills in farming, and so on. Without commenting on the value of each of these various objectives in the supervised practice program, we must go back to one of the major objectives in our work set forth in Misc. 1046 which states "To train present and prospective farmers for proficiency in farming." While there has been a marked improvement along this line, more teachers should square the supervised practice program of the pupil with this major objective in vocational agricultural education.