

UNIV OF KY-COLLEGE OF  
LEXINGTON KY EDUC

# agricultural education

MAGAZINE



In this postwar period an unprecedented number of young people are founding homes and becoming established on the land

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# The Agricultural Education Magazine

A monthly magazine for teachers of agriculture. Managed by an editorial board chosen by the Agricultural Section of the American Vocational Association and published at cost by Successful Farming at Des Moines, Iowa.

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## Editorial Comment

### The F.F.A. Looks Ahead

TWENTY-TWO years ago this month the F.F.A. was organized at the scene in which the 1946 Victory Convention is about to be unfolded. Altho the need for such an organization was demonstrated before the F.F.A. was founded at Kansas City in 1928, its possibilities were scarcely realized by leaders in the field of agricultural education.

The transition thru which the F.F.A. has progressed since 1928 has verified the predictions of its founders. Any skepticism as to the place and future of the organization which may have existed among workers within the field of vocational education in agriculture has disappeared. The organization has made a place for itself in the public secondary schools and has been given considerable recognition by the public.

But most important the F.F.A. is functioning in the lives of the members and helping develop in them the qualities which are essential for successful rural living.

The aims and purposes of the organization have proved to be sound. Our concern therefore should be that the emphasis in the F.F.A. shall continue to be centered upon the objectives for which the organization was founded. Such being the case there can be no doubt but that the F.F.A. will become increasingly important in the years ahead.

### Facilitating Meetings of State Officers

IF THE program of a state association of the F.F.A. is to function properly, arrangements must be made whereby the executive committee and the advisory council may meet at designated intervals. In Wisconsin the executive committee of the state association consists of the usual officers plus the past president who automatically becomes a member of the executive committee. The advisory council is composed of the adviser members of the executive committee and the president and secretary of the Wisconsin Association of Agricultural Instructors. All meetings of the executive committee are joint meetings with the advisory council. Advisory council members participate in the discussions in an advisory capacity but do not vote except on special occasions when they may be requested to do so by the officers.

Reimbursement on auto expenses of officers and members of the advisory council is provided at the rate of 3 cents a mile for travel to meetings of the executive committee and the advisory council and for other travel of the state officers. All expenses for attendance at these meetings are borne by the state association. In 1944-45 there were five meetings held, including the meeting of the state association. Travel expenses of the state officers and the members of the state advisory council for the year amount to \$709.60. We believe that this expenditure was justified in that the work of the F.F.A. thruout the state was much more effective during the year than would have been the case had not these meetings of the planning committee been held.

—L. M. Sasman, Wisconsin

### F.F.A. Convention Number

DUE to the proximity of this issue to the time of the National Convention of the Future Farmers of America to be held at Kansas City, Missouri, October 21-24, 1946, the program of the F.F.A. is featured herewith. Much of the credit for the planning of the issue and the solicitation of the special contributions included, is due A. W. Tenney, executive-secretary of the national organization.

The special articles pertaining to the national organization were prepared by J. Glyndon Stuff, president, and by William J. Huff, publicity director for the F.F.A. Contributions by advisers regarding programs of chapters were submitted by

### What Is Supervision?

EVERY person engaged in vocational agriculture in any capacity has as an important part of his duties the job of supervision. The teacher is called on to supervise the boy's activity program, which includes his productive enterprises, improvement projects, shop program, leadership training, and cooperative work. The agricultural teacher also must supervise the farming program of evening class members. The supervisor is called on to supervise the activities of teachers of vocational agriculture.

The job of supervision is to take the one that is receiving the supervision where he is and work with him on the problems that he has, in order to help him improve and to turn out a better finished product. New enterprises and activities are added as progress is made. As the boy broadens his program, the teacher must broaden and extend his own supervisory activities. A building contractor starts his supervision program with the foundation. His job at first is to supervise unskilled labor in digging trenches for a foundation. As the building progresses, skilled labor is required and thus the need for skilled supervision. The most skilled labor is needed as the building reaches the finishing stage. The print of the hammer head left on the sill would not be serious, but the hammer-head print left on the mantel would be unsightly. Therefore, the building supervisor must be able to help his carpenters in this special skilled work.

Boys with small activity programs studying vocational agriculture, farmers with limited farming programs, and teachers with narrow programs may be supervised in an unskilled way without doing damage. Most any supervision will help these individuals. But as the boys' activity programs broaden, as the farmers' farming programs increase in scope and kind, and as the teachers' instructional programs broaden, for the supervision to be helpful, it must become more skillful.

There are more activities involved, more problems to deal with, so the resourcefulness of the supervisor must increase.

Supervision is something that grows from the bottom up. It does not and cannot grow from the top down. The supervisor cannot carry to the teacher and community a vocational program. The teacher cannot carry to the boys an activity program, or to the farmers a farming program. Instead, as the boy develops an activity program, and the farmer develops a farming program, they have problems on which they need help. The teacher can supervise them and help them do a better job. In this way the teacher's program broadens and he needs help, so the supervisor can help him with his expanded program. As the supervisor helps the teacher do his work more efficiently, it makes it possible for the teacher to do more work. As the teacher helps the farmer manage his farming program more efficiently, the farmer is able to do more work. The teacher in this program contributes to the boy's and the farmer's program, and the supervisor contributes to the teacher's program, but the main growth in the program is reflected thru the boy and the farmer to the community. —R. H. Fisackerly, Mississippi

H. G. Garver, of Merriam, Kansas, and John Welbes, of Albany, Oregon. Presentations by representatives of state associations include the editorial by L. M. Sasman of Wisconsin, and the articles by R. B. Dickerson of Pennsylvania, and H. N. Hansucker of West Virginia.

### Pictures Used

The picture used on the cover page was submitted by Neil Johnston, the first and only adviser of the Brokaw Chapter at Clarinda, Iowa. The convention scenes used in the center spread were made possible thru the courtesy of the national organization of the Future Farmers of America.

The editors have had some response to their request for pictures to be used on the cover page and for pictures and illustrations to be used in the context. Pictures used will be credited to the sources and returned after the cuts have been made.

## Publicity for Future Farmers

JOHN FARRAR, Executive Secretary, Oklahoma Association F.F.A.

PROPER publicity for a good program of vocational agriculture can mean the difference between a program that is merely accepted by the community, and one that receives the full benefit of active backing of all businessmen and farmers. Obtaining that publicity is a direct responsibility of the adviser. No one else can do the job for him.

My job with the Oklahoma Association of Future Farmers is largely a publicity setup. One of my assignments, probably the most important one, is to get the F.F.A. before the public thru use of newspapers, magazines, and radio.

At state fairs, livestock shows, judging contests, and other F.F.A. activities of district or state level, where many chapters are involved, a publicity man is essential if the maximum benefits are to be derived from these events. I have some time available to spend visiting the various chapters working out feature stories about outstanding boys.

But it is not possible to handle more than a tenth of all F.F.A. publicity from the state level. The duty of publicizing his own boys must inevitably fall upon the local vocational instructor. How, then, should the instructor go about getting publicity for the F.F.A.? First, it should be asserted that a man does not need to know how to write a news story to secure publicity. News writing is an art that is learned by study and long practice. The average instructor of vocational agriculture knows no more about writing news articles than a publicity man knows about trimming the hoofs of a prize Duroc boar.

But the vocational teacher should take it upon himself to learn what constitutes news, and to make contacts with the proper persons who will translate his news into publicity.

### What Is News

News is anything which might be of interest to as much as 10 percent of the people reading any particular publication. Almost any activity undertaken by the F.F.A. chapter may be considered as news.

If a class of students of vocational agriculture goes out to the John Jones farm to run terrace lines or build a pond dam or see a fertilizer demonstration, that fact is news for the local newspaper.

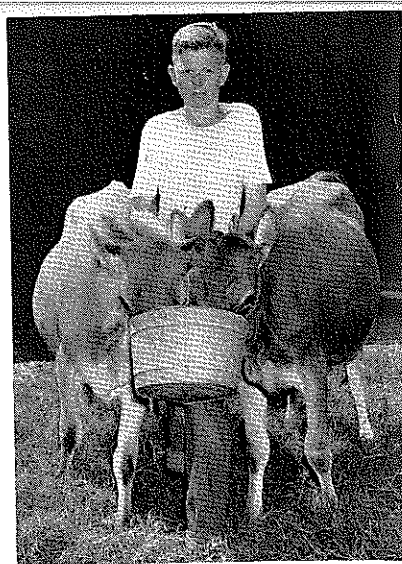
The enrollment of new boys into vocational agriculture is news, as is their initiation into the F.F.A., their promotion from Green Hands to Chapter Farmers, their election of officers, and their plan of activities for the ensuing year.

I have seen a very few news stories giving a year's end summary of all the accomplishments of an F.F.A. chapter, but I would be willing to bet that such a story would be accepted and published by any newspaper editor in a town where vocational agriculture is taught.

The fact that a single F.F.A. member has made a profit out of a productive enterprise project is news, if the news writer can have all the facts about how and why he made the profit. A feature article could be written about every boy who attains the State Farmer or American Farmer degree.

The number and kinds of livestock a chapter's members have on feed for the fairs and livestock shows is news, particularly in the month before such events, when newspapers like to have news articles to publicize them.

When a boy goes out of the state or to a neighboring farm to buy a high-quality pig to put on feed or for breeding purposes it is news. The seller, incidentally, upon seeing the publicity he received as a



"Human Interest," a boy and two Jersey calves, caused this F.F.A. picture to get circulation in a state daily, a district daily, and several smaller newspapers, as well as a magazine with statewide circulation. The boy's F.F.A. program is good, but nothing to get excited about. This simply is another example of a good picture selling an otherwise drab publicity story

breeder of good livestock, would be more prone to sell to that or another member of the chapter the next time a good animal was wanted.

If a boy, or group of boys, brings in a tractor or combine or any other fairly complicated piece of farm machinery to the vocational shop and repairs it, that is news. If the class tests soil samples, it is news. If lime and fertilizer are applied to farms as a result of those tests, still better news.

Too often, it is believed that an event must be of world-shaking importance to be good material for a newspaper. Editors do not share in this opinion. They know that simple stories about the activities of the home folk, the more the better, is what keeps their circulation up and their revenue coming in.

To list all Future Farmer activities that would constitute news would require the pages of a good-sized book. It should suffice to say that if the instructor of an active chapter will analyze the facts carefully, he can see from three to a dozen news stories emanating from his chapter every week.

Most newspapers operate under the rule that any legitimate excuse to get a local person's name in the print is news. Failure of the instructor to realize this fact and to recognize the importance of publicity means simply that he is failing to get the most out of the boys, and to take the advantage of a chance of advancing himself and his program in the community.

In Oklahoma, recently, one of our outstanding Hereford breeders conducted his seventh annual field day and judging contest for F.F.A. and 4-H Club members. Fifty-nine chapters attended the field day, some of them traveling more than 250 miles, yet our clipping service revealed that only six of that number took the trouble to tell their local newspapers about the trip. The other 53 failed in an obligation and an opportunity.

An instructor of vocational agriculture can obtain publicity for his chapter by



The scene of this picture is on a soil conservation experiment station. The Future Farmers are merely studying the various types of native grasses that will grow in their home area. There is no particular story attached. The scene could be repeated anywhere. But because boys and the outdoors are interesting to the public, one newspaper and one magazine, both with statewide circulation, gave publicity to the F.F.A. by printing the picture

frequent visits with the local newspaper editor or with reporters on the staff. He should become well acquainted with these newsmen, learn what they want, and how he best can supply it to them.

He should go out of his way to furnish the newspaper with news of Future Farmers, or give them tips on any other items of news interest that he may see. Reporters and editors are glad to write the stories themselves if they can have the facts, but in most communities their time will not allow them to make regular visits to the high school, as they visit the city hall, courthouse, and other places where news is concentrated.

### Must Be Timely

The instructor of vocational agriculture must take his news to the newspaper! *He must do it while it is news!* A daily newspaper prides itself with carrying up-to-date news. Any story that comes in a day late reflects upon the staff of the newspaper, and the editor will be hesitant about accepting it.

If an F.F.A. activity of news interest takes place during the morning hours, the newsmen should be informed immediately, by telephone or personal visit. He wants it in the afternoon paper on the same day it happened. If the activity is in the afternoon or evening, the newspaper should be informed early the next morning. If he has the news early, he is able to fit the writing into his crowded schedule.

A personal visit to the newspaper is vital if at all possible. Very often the writer will want to ask questions about phases of the article that the vocational instructor may not have considered an important part of the story.

Above all, names of every boy who participated in the event should be available, *correctly spelled.*

On special events, such as banquets and out-of-town trips, most newspapers like to have a story three days to a week

in advance of the actual happening and again immediately afterward.

Few small-town newspapers have a large enough staff to cover such events as fairs and livestock shows. They should be given every assistance possible at these times, even tho the instructor may be extremely busy.

As a newspaper editor, I once carried a grudge against a county agent more than a year simply because he rushed off to a district show with results of a local livestock show in his pocket, leaving me and my newspaper flat. I realized it was merely an oversight on his part, but as an editor I thought it was an inexcusable oversight.

When chapter members go out of town to shows, judging contests, or state conventions, it is important to remember that the local newspaper cannot send a representative along, but that the editor wants the news in his publication before it comes out in the large state dailies that are distributed in his town, if at all possible. A long-distance telephone call will be worth much more than its cost in cementing good relations with the editor.

### Use of Pictures

Most newspapers now like to use pictures, but few of the papers in towns of 15,000 population or less have their own engraving plants, tho a lot of them do have part-time photographers on their staffs. Their budget for engravings usually is low, and it may be advantageous to the F.F.A. chapter to work out an arrangement with the editor to share costs of cuts that he might want to use.

Pictures have a wonderful publicity value. Few pictures escape the attention of any of the readers. But they should be good pictures, taken by competent photographers. Good livestock pictures are difficult to obtain. A grand-champion Hereford steer may look like a Jersey bull unless he is correctly posed. In the posing

of the animal, the instructor, who knows what an animal should look like, can be a big help to the photographer. A bad picture is worse than no picture at all. On the other hand, a good picture may mean the difference between good publicity and nothing at all. Boys and animals rank high in the list of pictures which catch and hold reader interest. Future Farmers and their livestock should be photographed more often.

If the instructor's relations with the press are right, the editor will be glad to assign a photographer to take F.F.A. pictures. Or if the newspaper has no photographer on its staff, the editor will help find one who is able to make pictures that are acceptable for newspaper cuts.

Concerning the benefits to be derived from publicity, I think most vocational teachers realize there are advantages in their boys getting into the news, but many, I believe, do not grasp the full importance that should be placed on it.

### Benefits From Publicity

Vocational training in agriculture is financed from public funds. It is a type of training that is a radical departure from the old school of the "Three R's." The general public, to understand why their money is being used for this training, must understand the program. Publicity is the most effective medium for bringing about his understanding.

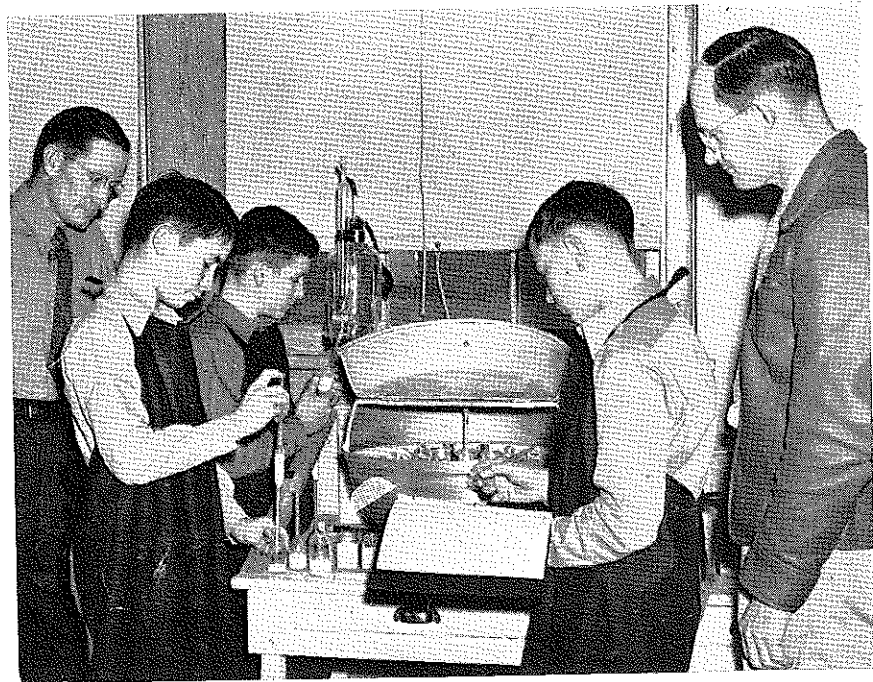
Publicity also serves an important part in cementing good relations of the boys within the F.F.A. chapter. "The sweetest sight in the world is a man's own name in print" is a statement that carries doubly true for boys in high school. Their name in print gives them a feeling of importance that every boy wants. With this feeling of importance, they realize that it is their participation in F.F.A. that has gained it for them. They will be more loyal to the F.F.A. and better workers for their instructor.

Parents very often have had a hard struggle to make farming pay. It is hard for them to see why their boy should be educated to become a farmer. Publicity of the F.F.A. will bring them around to seeing the advantages in farming their boy may have that were not available to them. Understanding this, they, who are more interested than anyone else, will become active supporters of the agricultural program rather than skeptics who believe it is a waste of time and money.

Promising farm boys getting ready to enter high school are greatly impressed with reading about the activities engaged in by Future Farmers. If these activities are properly publicized, they will want a part in them.

### Correction

The September column entitled "Our Leadership" contained some errors in the statement concerning R. L. Morgan and Bert Brown. The notation indicated that Mr. Morgan succeeded J. A. Guiteau as supervisor in Washington, whereas it should have read that he succeeded the late Earl R. Cooley as state supervisor in Oregon. Mr. Morgan had previously served as assistant supervisor since 1937. The supervisor who succeeded Mr. Guiteau in the state of Washington is Bert Brown. The editor extends apologies to the Oregon and the Washington supervisors for these errors.



Here is a vocational agriculture training picture that could be repeated in any chapter in the United States. The story is in the picture, or at least that's what Country Gentleman magazine thought when they printed it

# Leadership Training for F. F. A.

## Chapter Officers

RUSSELL B. DICKERSON, Teacher Education, Pennsylvania State College

If a chapter of Future Farmers of America is to function properly, there must be a program of systematic leadership training for officers, members, and advisers. The need for systematic leadership training in Pennsylvania was long overdue. From the officers and advisers of the local chapters to the officers and advisory council of the state association, the need was apparent.



R. B. Dickerson

Since the sixteenth annual convention of the Pennsylvania Association of Future Farmers of America, held in January 1944, approximately 2,000 officers of local F.F.A. chapters throughout the state have received systematic instruction in leadership.

Following the sixteenth convention of the Pennsylvania Association, State Adviser Mr. H. C. Fetterolf appointed a committee to plan and conduct a leadership training school for 1944 state F.F.A. officers-elect. Plans were developed and the first school was designed primarily to prepare the state officers for the seventeenth annual convention of the state association. In addition, the state officers were to be prepared to assist local chapters when and wherever they could arrange to visit them during the year.

### Training Schools Started in 1944

The first, state, leadership-training school was held on the campus of The Pennsylvania State College, August 28, 29, and 30, 1944. In addition to the officers of the state association, the school included the members of the leadership-training school committee, the members of the state F.F.A. advisory council, and visiting F.F.A. officers and members from nearby chapters. Instructors in the school were chosen from the membership of the leadership-training school committee and the advisory council.

During the training school the officers, with a very characteristic earnestness of purpose, followed a program of participating experiences in the several phases of leadership development as follows: (1) increasing their knowledge of the Future Farmers of America, including (a) the national organization, (b) the state association, (c) the area chapter or council, and (d) the local chapter; (2) perfecting degree and ceremonial work; (3) mastering common parliamentary procedure; (4) improving self-expression; (5) building worthwhile chapter programs of work; (6) more comprehensive understanding of the duties and responsibilities of chapter officers; and (7) improving F.F.A. public relations thru member contacts with service clubs, parent-teacher associations, the Grange and other rural and urban organizations. In addition, there was provision for recreation and refreshments throughout the program. The instruction in each of these phases

of leadership training was achieved by means of individual participation, group discussion, committee work, and an exhibit of supplies and equipment for use in F.F.A. chapters and by individual members. The program of the school followed a workshop procedure with everyone contributing and with a maximum of individual officers participating.

In January 1945, the state officers were brought together again for two days of instruction designed specifically to prepare them for conducting the seventeenth annual convention of the Pennsylvania Association of F.F.A. During this session the officers were assisted in preparing the agenda for the convention; they set up the convention meeting room and arranged for rooms and facilities for committee meetings. They were rehearsed in the ceremonial and degree work and in parliamentary procedure which related specifically to the conduct of the convention. In addition, each officer was assisted with his officer-report for the convention, and the president with his closing address. Considerable time was devoted to rehearsal of these reports as well as the ceremonies for the degrees of Keystone Farmer and Honorary Keystone Farmer and for installation of officers.

### Now Have State-wide Program

During the seventeenth convention the delegates approved and adopted a plan for a state-wide leadership-training program which has been carried out with the exception of a few necessary omissions due to travel restrictions. Briefly, this plan, in addition to providing for the continuation of the leadership-training school each year for state officers, paved the way for area leadership training schools in each of 35 areas in Pennsylvania. Officers of local chapters in each of the areas as well as officers of the area (county or bi-county) chapters were to be included in the program of instruction.

To date, in addition to three schools

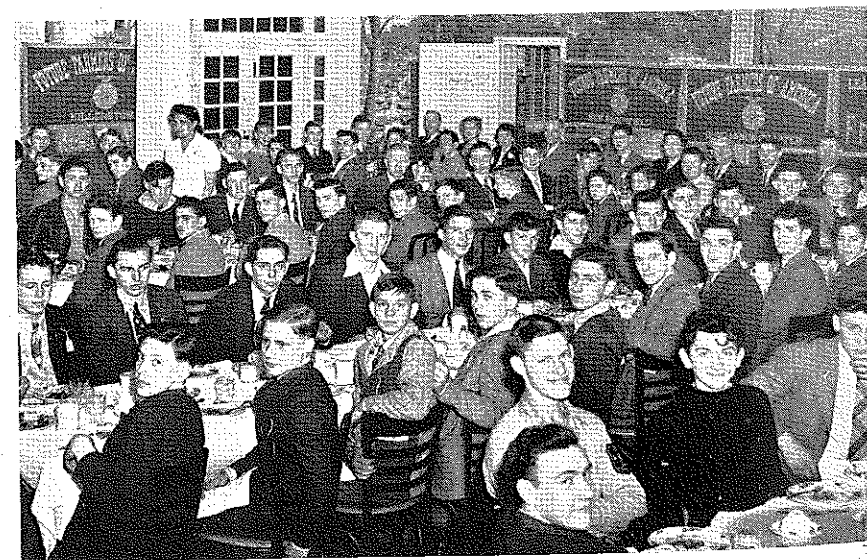
for state officers (1944, 1945, 1946) 33 of the 35 areas have held one or more leadership-training schools for chapter officers. The instruction received in these schools has been taken back to local chapters and put into practice with the members, thus extending the influence of leadership training to a large portion of the total membership of approximately 15,000 boys.

### Officers Instructed

Since 1944, therefore, more than 2,000 F.F.A. officers in 65 of the 67 counties in Pennsylvania have received systematic instruction in leadership training. The remaining two county areas have set dates and are making plans for their leadership-training schools during the summer and fall. Needless to say, the teachers of agriculture, or chapter advisers, have benefited immeasurably from the instructional program.

In each of the area schools the advisers have accompanied their respective chapter officers to the school and they have served as instructors during the several sessions. In a few area schools the instructors were secured from among local ministers, leaders in service clubs, school administrators, and farmers. In such cases the chapter advisers were provided with special sessions of their own with representatives from the state department of agricultural education, and/or the teacher-training department in agricultural education of The Pennsylvania State College serving as instructors. During the current summer session at The Pennsylvania State College the writer has taught a graduate course for teachers of agriculture, in which emphasis was placed upon program building and leadership training in F.F.A. chapters.

The area schools were successfully held in high-school buildings, community halls, Grange halls, camps, and public parks (in the summertime), churches, and recreation centers. Usually the church provided the most effective facilities. In addition to the use of the Sunday School assembly room there was access to the classrooms for group sessions and committee work, and in most cases the ladies of the church prepared and served the noon lunch and the evening banquet. In most cases the program of an area lead-



Banquet, Cumberland-Perry Area F.F.A. leadership training school at Allenberry



Leadership training school in session, Cumberland-Perry area

ership-training school consisted of an all-day and evening program. Those held in camps and public parks during the summer usually consisted of a two-day program with ample provision for swimming, baseball, and other forms of recreation.

A typical program for one of the area schools is illustrated herewith:

Eight chapters were represented at the Cumberland-Perry area school with an approximate attendance of 70 persons. Included were five officers from each of eight chapters, the advisers, instructors, and guests.

### Benefits From Training Schools

In closing, suffice it to mention that the leadership-training schools in Pennsylvania have been a source of great satisfaction to all concerned and interested in the welfare of the F.F.A. Boys and teachers alike have received and enthusiastically participated in the program of instruction. School officials, including high-school principals and superintendents, county superintendents, school directors, and teachers of academic subjects who have seen the F.F.A. boys in action, both during and following the leadership-training schools, have all been generous in their praise of the instruction and its effect upon the boys.

It is clear that the difference between training in F.F.A. leadership and the lack of training can largely determine the difference between, (1) success or failure of the aim and purposes of the F.F.A., (2) intense interest and enthusiasm or disappointment on the part of members and advisers of the F.F.A., and (3) great satisfaction or discouragement for chapter officers and advisers of the F.F.A. If the leadership-training program is systematic, the real benefit will be most manifest in the local chapters where the grass roots of the F.F.A. must be firmly planted and constantly nurtured.

The Kansas City Municipal Auditorium was used as official headquarters and housing for the F.F.A. national convention for the first time in 1937.

The one hundred piece band of the Pennsylvania Association of the F.F.A. has been designated as one of the official musical organizations at the National Victory Convention.

Cumberland-Perry Area Leadership Training School for Officers of F.F.A. Chapters, Allenberry\*, Near Boiling Springs, Pennsylvania, March 20, 1946

### Program

- 9:30- 9:45 Registration—Fairfield Hall
- General Chairman—Raymond Diehl, President, Boiling Springs Chapter
- 9:45-10:00 Opening Ceremony—Mechanicsburg Chapter
- Welcome—Mr. W. G. Rice, Supervising Principal, South Middleton Township High School, Boiling Springs, Pennsylvania.
- Announcements—Mr. George Smith, Adviser, Boiling Springs Chapter
- Introduction of Guests—Mr. William Koons, Adviser of Hemlock Chapter, Blain High School
- Appointment of Nominating Committee for Bi-County F.F.A. Officers, Mr. Albert Mowery, Adviser, Mechanicsburg Chapter
- 10:00-10:15 Group Singing—Song Leader, Mr. Millard Fitzgerald, Adviser, Shippensburg Chapter
- 10:15-11:30 Talk—"Practicing Parliamentary Procedure"—Dr. Russell B. Dickerson, Department of Agricultural Education, State College, Pennsylvania
- 11:30-12:30 Lunch—Fairfield Hall
- History of Allenberry—Mr. Charles A. B. Heinze, Owner of Allenberry

- 12:30- 1:00 Talk—"Preparing and Making a Speech"—Mr. Cyrus G. Bucher, Assistant Sales Manager, C. H. Musselman Co., Biglerville, Pennsylvania
- 1:00- 1:30 "Organizing Committee Work"—Dr. Russell B. Dickerson
- 1:30- 2:00 Three Minute Talks by Chapter Representatives—
  1. "Planning Chapter Meetings"—Clark Bower, President, Hemlock Chapter, Blain High School
  2. "History of F.F.A."—William Park, President, Carlisle Chapter
  3. "How to Make Meetings Interesting"—Sam Hoover, President, Newville Chapter
  4. "Opportunities for Advancement in F.F.A. Degrees and Ceremonies"—Charles Koon, President, Shippensburg Chapter
  5. "Building and Carrying Out a Program of Work"—Jerry Tressler, Secretary, Newport Chapter
  6. "Community Service"—Donald Bornman, President, Duncannon Chapter
- 2:00- 2:45 Group Sessions—"Duties and Responsibilities of Chapter Officers"—Presidents and Vice-Presidents—Leader, Mr. Joseph Miller, Adviser, Newport Chapter
- Secretaries—Leader, Dr. Dickerson
- Treasurers—Leader, Mr. Albert Mowery, Adviser, Mechanicsburg Chapter
- Reporters—Leader, Mr. Fitzgerald, Adviser, Shippensburg Chapter
- 2:45- 3:30 Group Sessions—"Building and Carrying Out a Program of Work"—Presidents and Vice-Presidents—(Conduct of Meetings; Leadership Activities in Program of Work)
- Leader—Dr. Dickerson
- Secretaries—(Cooperation; Scholarship)
- Leader—Mr. F. A. Lundahl, Adviser, Newville Chapter
- Treasurers—(Supervised Farming; Earnings and Savings)
- Leader—Mr. Adam Condo, Adviser, Duncannon Chapter; Mr. Koons, Adviser, Hemlock Chapter, Blain, Pennsylvania
- Reporters—(Community Service; Recreational Activities)
- Leader—Mr. Dale Bower, Adviser, Carlisle Chapter
- NOTE: Each leader shall be responsible for having one from his group summarize, before the general assembly, the discussion of that group; the name and topic to be submitted to the chairman of the general session prior to the meeting.

### General Session—Fairfield Hall

- 3:30- 3:45 Group Singing—Leader, Mr. Fitzgerald
- Representatives prepare reports
- 3:45- 4:15 Reports of Representatives
- 4:15- 4:25 Announcements—Mr. Smith, Adviser, Boiling Springs Chapter
- Closing Ceremony
- Ellection of Bi-County F.F.A. Officers
- 4:25- 6:00 Recreation Period—Basketball—South Middleton Township High School Gymnasium
- NOTE: Each player selected must bring his gym shoes and trunks
- 6:30- 9:30 Banquet—Fairfield Hall
- Toastmaster—Raymond Diehl
- Invocation—David Trout, President, Newport Chapter
- Greetings—Mr. Ralph Jacoby, Superintendent of Cumberland County Schools
- Greetings—Mr. J. Paul Burkhart, Assistant Superintendent of Cumberland County Schools
- Greetings—Mr. Ralph Swan, Superintendent of Perry County Schools
- Talk—"Developing Wholesome Qualities of Leadership"—Dr. Dickerson
- Group Singing—Leader, Mr. Fitzgerald
- Talk—"This and That"—Mr. H. C. Fetterolf, Department of Public Instruction, Harrisburg
- Remarks—Richard C. Lighter, Adviser, County Vocational Education, Cumberland-Perry Area.
- NOTE: The general chairman will announce speakers.
- NOTE: 1. Each boy bring an F.F.A. manual.
- 2. Each chapter bring their F.F.A. banner.

\*Allenberry is the name of a 57-acre tract of land with five different buildings which have been converted into meeting halls, guest houses, and private homes. Owned and operated by Mr. Charles A. B. Heinze and located a short distance from Carlisle in the heart of Cumberland County's progressive farming area, Allenberry is a popular meeting place for large and small groups from all parts of Pennsylvania. The paintings on the walls shown in the accompanying photographs were placed there by Doctor Sadler of Carlisle whose chief interest in sharing his wealth was to do something constructive for others to enjoy.

## Building a Chapter Program of Work

JOHN WELBES, Teacher, Albany, Oregon

THE formulation of a sound program of work for an F.F.A. chapter includes five major considerations: a supervised farming program, cooperative activities, leadership training, service activities with all agencies in the community, and goals and competitions among members.

The program of work should be started with the farming program of worthwhile Future Farmer projects. To have the full confidence and understanding of his boys, and instructor must acquire a complete knowledge of the home-farm situations. This should be obtained before the beginning student enters high school. Frequent project visits should be made by the instructor, during which he can make observations and help plan improvement projects and methods of increasing the income on the farm. This will necessitate a thoro knowledge of the latest agricultural developments and practices in the community and region.

A goal or guide is made for each beginning student for his complete high school career. The following is an example of such a program for a boy in a three year department, with the student's home situation being taken into consideration:

### Sophomore

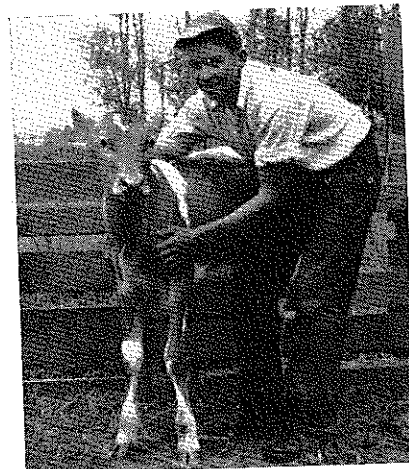
- 1 registered bred gilt
- 7 feeders
- 7 weanlings
- 2 acres corn
- 1 acre oats

### Junior

- 1 registered sow
- 1 registered bred gilt
- 20 weanlings
- 8 feeders
- 4 acres corn
- 5 acres grain
- 2 heifers

### Senior

- 2 registered sows
- 1 registered gilt
- 30 weanlings
- 12 feeders
- 2 cows
- 1 calf
- 10 acres grain
- 5 acres corn
- 2 acres pasture
- 2 acres hay
- 5 acres cash crop



This beginner already owns three calves

Thru this procedure of giving the student a goal toward which he may work, the supervised program is made much stronger. Such a proposed farming plan is always subject to change due to unforeseen conditions at its inception.

The supervised-farming program, like all other work in the chapter, is carried on by committees. Each committee is responsible for its own goals and accomplishments set up at the first meeting of the year. A few of the goals may not be reached, but others may be exceeded.

An illustration is shown in Activity I. By setting high goals in the supervised-farming program, most of the cooperative activities will be taken care of. For example, a chapter may purchase a bull of high quality to fulfill its goal in the chapter project program, and this may likewise serve as part of the work program of one of the members. The same will hold true of a boar, ram, or seed treater, as most boys do not have the money to purchase such items individually.

A simple organization for the cooperative program will include: general officers—manager, assistant manager, secretary-treasurer; enterprise managers—dairy manager, swine manager, crop manager and sheep manager.

Activity	Committee	Goals	Ways and Means
A. Increasing dairy projects	M. Kutsch R. Bond R. Stuart	1. Increase number of dairy projects 15 percent over previous year 2. Increase the average production of dairy animals 20 pounds over previous year 3. Keep all good breeding stock 4. Increase calf chain by at least one calf 5. Buy at least 10 calves cooperatively	a. Follow county recommendations a. Use better sires and culling a. Purchase 2 calves for calf chain a. Buy calves from one or two dairymen who own animals of high production
B. Test all cows	G. Muller G. Grenz W. Zehr	1. Have 100 percent of the members with dairy projects 2. Test once a month 3. Keep records of all feed and grain 4. Keep records of all results for future study and comparison 5. Have at least 250 cows of farmers and parents on test	a. Form a milk testing association of all boys with dairy projects a. Charge 4 cents a test to cover expenses and breakage a. Furnish special sheets and file for each member in which to keep records a. Make any outsider eligible with members making the test and contacting them
C. Additional project practices	K. Steckley M. Marsh J. Koch	1. Have 100 percent of members familiar with projects and practices of every other boy in the class 2. Have 100 percent of the boys keep a page in their project book of recommended practices in the community and check them each month 3. Have 95 percent of the members visit the 8 best projects in the chapter	a. Each class to spend 3 days visiting projects of other boys a. Hold a project tour in the spring before school closes and again in the summer
		4. Have 90 percent of the members follow practices common in the community or advocated by the state college 5. Each member to average at least 4 enterprises 6. 95 percent of the members have ownership of their projects 7. 90 percent of the beginning members to have continuation projects 8. Each member to average at least 10 improvement projects 9. Each member to average at least 7 supplementary projects	a. Have seniors talk to beginning boys on the value of good projects a. Have banker talk at one meeting a. Encourage thru classroom instruction a. Have project contests a. Hold an open meeting at the beginning of the year with all parents invited. All phases of projects will be discussed by members

Activity	Committee	Goals	Ways and Means
A. Swine cooperative	B. Burch O. Ohling J. Ammon	1. Mix 1,800 pounds of minerals 2. Mix 2,500 pounds of protein supplement 3. Purchase two more registered boars 4. Sell at least 15 head of breeding stock to other chapters 5. Keep records of all litters born 6. Put at least 6 gilts out on shares to needy students 7. Enter all sows and gilts in state litter contest 8. Conduct a bred gilt sale in December. Have at least 25 head for sale	a. Get bids on all purchased feed and mix in shop a. Advertise in Future Farmer paper a. Send East for 2 new boars a. Send circulars to other chapters a. Every member to keep his own records and then summarize them at the end of the year a. Select best gilt from sows now out on shares and put them out to needy students



In keeping with the committee type of program of work, these boys have been appointed by the F.F.A. chapter's swine co-op to mix minerals for the use of the members

times can be scheduled properly. This serves as a means of keeping the chapter as a whole advised on the happenings as each member can keep his respective class informed. Leadership can be strengthened in the program of work by close co-ordination with civic clubs and civic-activity work programs and by awarding of special prizes for contests such as public speaking. A sample program for the public-speaking committee is indicated in Activity III.

The chapter's program of work should always be based on the needs of the local community. A department in good standing with the community will find it much easier to fulfill its goals. The awarding of honorary chapter degrees to outstanding citizens will stimulate interest in the program and bring cooperation from the community when needed. A sample program is shown in Activity IV.

Activity	Committee	Goals	Ways and Means
A. Public speaking	B. Kouns D. Pharis V. Scott	1. 100 percent participation in local chapter speaking contest 2. Winner of local contest to compete in district 3. 10 speakers on programs of farm and civic organizations 4. 90 percent of the speeches to be on subjects of national interest 5. Speeches to be at least 10 minutes long 6. 100 percent of the members give at least 5 speeches during the year	a. Each boy required to give a 3-minute talk each month on his project and to answer questions a. Winning speeches will be used on various programs a. Members encouraged to speak on problems facing the farmer today

### Activity IV

Activity	Committee	Goals	Ways and Means
A. Home improvement and beautification	G. Koster L. Adkins N. Agee	1. 90 percent of the members spend at least 30 hours in any of the following ways: Pruning shrubs Repairing gates and fences Repairing farm machinery Mixing at least 150 gallons of paint for sale and distribution Painting buildings Planting lawns Tiling fields Planting trees	a. Visit community, nurseries b. Visit outstanding farm shops c. Make an entry in the state farm-shop contest d. Demonstrations on all types of farm repair work e. Work with parts and implement companies f. Allow each member points on activity chart for doing such g. Show pictures of farm conveniences and home beautification



In carrying out its community service project, one F.F.A. chapter constructed a chicken house for a needy family

Activity	Committee	Goals	Ways and Means
Meetings	H. Whitaker W. Goin R. Horn	1. Conduct at least 12 well planned meetings during the year, 4 of which must be at night and at least one hour in length 2. Average at least 90 percent attendance at all meetings 3. Use official ceremonies at all meetings 4. Have outside speakers at at least 4 meetings	a. A yearly schedule will be made at the beginning of the year a. Have meetings interesting enough so members will look forward to coming a. All officers know ceremonies. Select reserve set of officers to fill in absence of regulars a. Known speakers will be asked to talk

In this type of organization the enterprise managers are responsible to the general officers, who are over all cooperative activities. In this way each cooperative knows what the others are doing and the preparation of the complete F.F.A. report for the chapter is made easier. Each cooperative sets up its own

program of work similar to the one shown in Activity II.

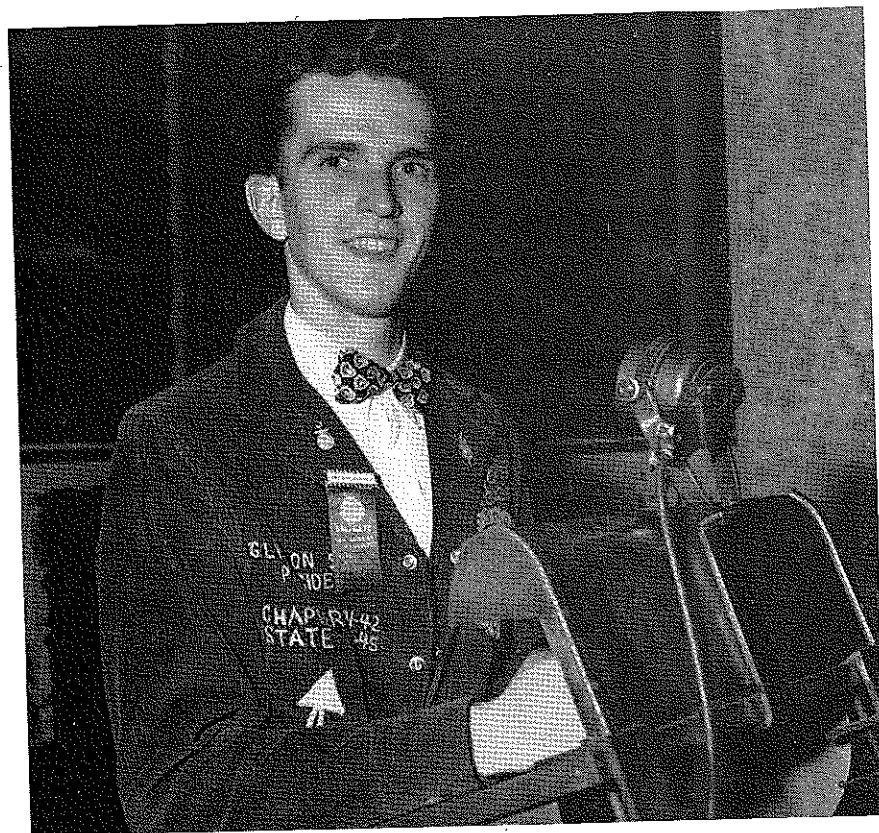
Leadership is developed in the program of work by having each member of the chapter serve on one or more active committees. In planning the program it is advisable to put a member of each class on each of the committees if the meeting

It would be erroneous to think that meetings, recreation, and scholarship activities are not important in the program of work. They are very much so, but will eventually take their places if the basic program is strong. Well-planned meetings are a great asset to a good Future Farmer organization. A typical outline of the work of a meeting's committee is indicated in Activity V.

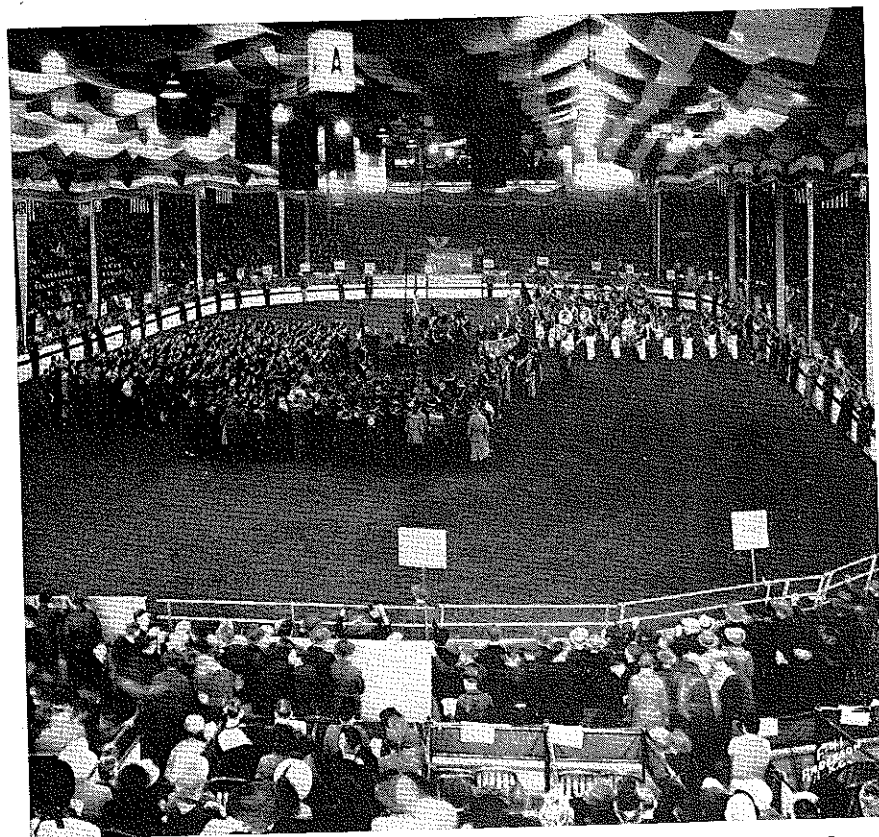
### Subscriptions

In keeping with the current expansion of the program of vocational agriculture, the editing-managing board is anxious to extend the services of the magazine. New teachers, special instructors of veterans classes, and college students majoring in agriculture education represent the major sources for additional subscriptions. The regular rate is \$1 per year, and the special rate for college students is 50 cents for nine months.

# Victory Convention



J. Glyndon Stuff of Dixon, Illinois, National President of the Future Farmers of America, who will preside at the F.F.A. Victory Convention in Kansas City, October 21-24



The annual convention is held at the time of the American Royal Livestock Show. One of the features of the convention is the presentation of the Star Farmer Awards at the Show

## Our National Organization

J. Glyndon Stuff, President  
Future Farmers of America

The first nationwide program of vocational agriculture was provided for by Congress in 1917. Soon thereafter, boys entering this program felt a need for a national organization, which would emphasize leadership, patriotism, service, cooperation, and community participation. Therefore a national organization of boys studying vocational agriculture known as the Future Farmers of America was organized in 1928. Since that time the F.F.A. has become an integral part of the public-school system.

The F.F.A. is for boys from 14 to 21 years of age and has local chapters throughout the United States, Hawaii, and Puerto Rico. Boy officers are elected annually by their fellow members to carry on the business of the organization. Each chapter has as its adviser the instructor of vocational agriculture in the local school.

The various local chapters make up the state associations which also elect their own boy officers. The organization is governed throughout by the boys themselves. State supervisors of agricultural education are the advisers to the state associations and give aid when requested to do so. Forty-nine state associations including Hawaii and Puerto Rico make up the national organization which in turn elects its own boy officers and has as its adviser the Chief of the Agricultural Education Service of the U. S. Office of Education.

In 1945 the F.F.A. had 6,030 local chapters with a total membership of 194,740. With membership cut down somewhat during the war, the program is again expanding and the total is expected soon to surpass the 250,000 mark.

As boys progress thru the F.F.A. they realize more and more the great opportunities that are available. They learn the cooperative spirit—how to get along with and work with others, how to buy and sell cooperatively; they learn and practice leadership in the community as well as in the organization; they want to be of service whenever called upon; they practice thrift and save for the future; they develop patriotism and good citizenship practices, assisting in the school, church, home, and civic organizations of their communities.

A Future Farmer looks ahead to the time he can become successfully established in farming for himself. He can fully realize then why over 1,200,000 of his fellow members ahead of him have benefitted from the program of vocational agriculture and the Future Farmers of America.

Membership in the F.F.A. has passed the 200,000 mark according to a report issued recently by the F.F.A. Board of Trustees.

## Plans for National Convention

WILLIAM J. HUFF, Director of Public Relations and Information, F.F.A.

**MORE** than 15,000 farm boys from every state in the union, Puerto Rico and Hawaii will gather at Kansas City, Missouri, October 21-24 for the Victory Convention of the Future Farmers of America.

Held annually at the time of the Royal American Livestock Show, the convention this year will feature the largest attendance in the 19-year history of the organization and will honor the more than 4,000 members and past-members of the F.F.A. who lost their lives in the war.

The 200,000 farm boys studying vocational agriculture in the nation's high schools, who make up the membership of the F.F.A., have invited President Harry S. Truman to attend their convention. Also present will be many leaders from the fields of agriculture, industry, and government who are active in the program of vocational agriculture.

With convention attendance held to a minimum during the war years, delegates to the October gathering will review the wartime accomplishments of the F.F.A. and will plan a program of work for the coming year.

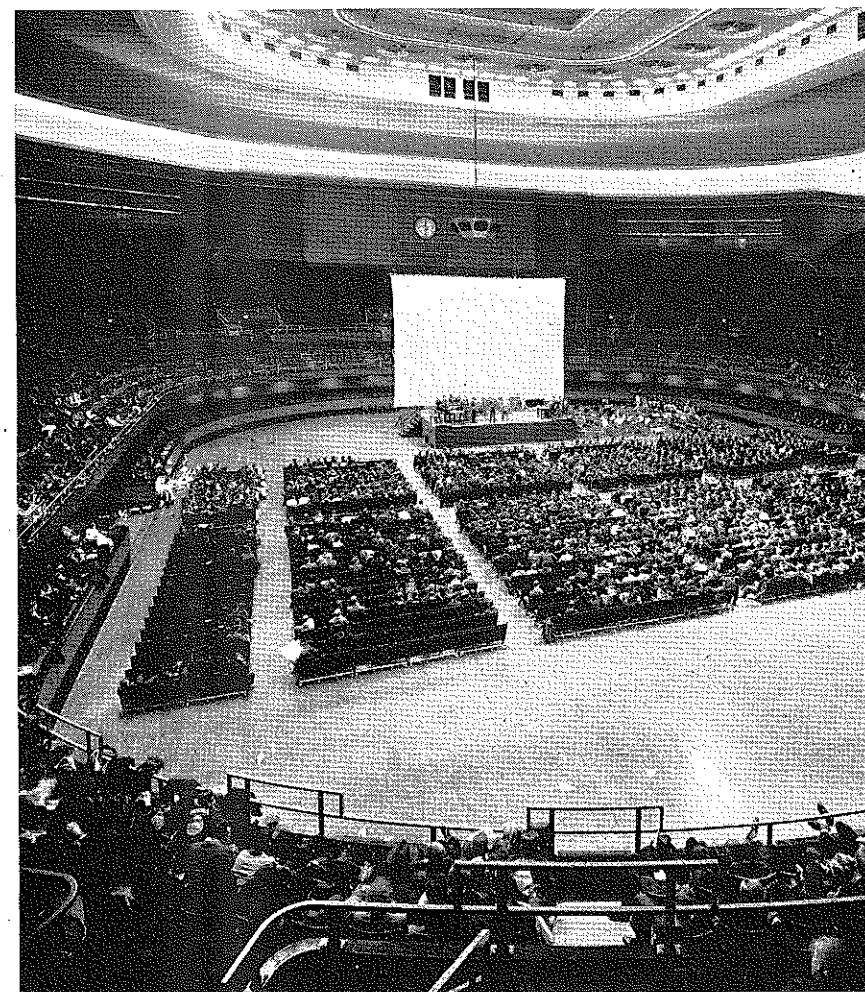
Highlights of the meeting will include the public speaking contest, in which a national winner will be chosen from among four regional entries, the presentation of American Farmer Degrees, conferred upon the outstanding boys in the field of agriculture during the past year, and the designation of the Star American Farmer, chosen the best young farmer in the country. A number of adult leaders in the field of vocational agriculture will be awarded the Honorary American Farmer Degree.

Convention delegates will also pay tribute to the supporters of the Future Farmers of America Foundation, who thru their contributions take an active part in the program of vocational agriculture thruout the country. Seventeen commercial organizations have given over \$50,000 this year to be used for contest awards and prizes.

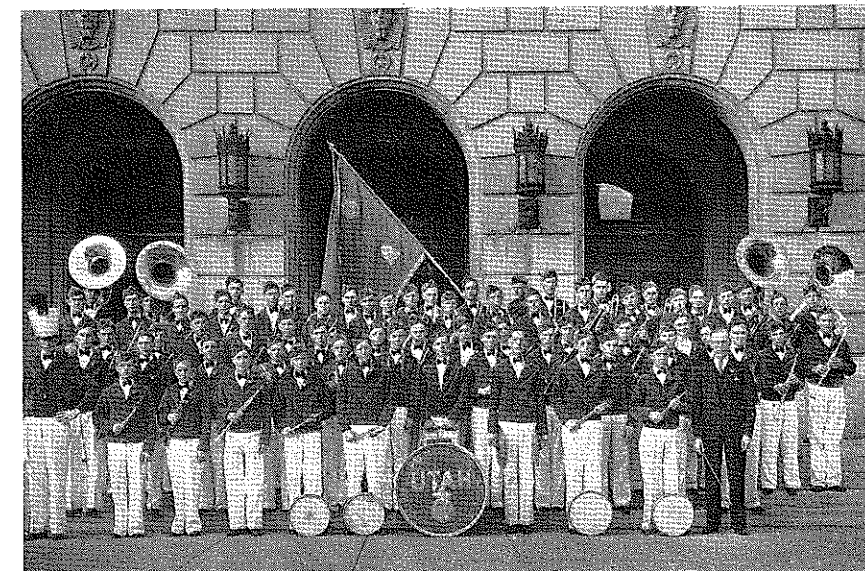
With F.F.A. brass bands from Pennsylvania and Utah, the Mississippi F.F.A. string band, and F.F.A. chorus from Wisconsin, an orchestra from Hawaii and a rhumba band from Puerto Rico, the entertainment program for the convention is the most extensive ever planned. Many local chapters and state associations will be represented on the talent-night program and in the Victory Pageant.

The closing session of the convention will feature the election of boy officers, who will conduct the affairs of the national organization during the coming year, and the annual dinner given by the Kansas City Chamber of Commerce in recognition of the leading role the F.F.A. holds in the nation's agriculture.

# Future Farmers of America



The Future Farmers of America national convention in session in the main auditorium of the Convention Hall at Kansas City, Missouri. More than 15,000 farm boys are expected to attend this year's Victory Convention



Band music for the convention is provided by the state associations. The Utah Future Farmers of America band will be one of the six musical organizations providing entertainment at the Victory Convention

H. D. GARVER, Teacher,  
Merriam, Kansas

WHEN "Conduct of Meetings" was written into the score card for the National Chapter Contest, it was done for a distinct purpose. No doubt, those who were responsible for setting such an instrument for evaluating local programs of work, foresaw



H. D. Garver

a focal point for all chapter activities. This is in line with the traditionally American way of doing things. The regular meetings of a local chapter, in reality, a "town meeting" wherein each and every citizen has an equal voice in the affairs of the community. It is also a "chautauqua" for the entertainment and enlightenment of those attending.

Shawnee-Mission Chapter has had all kinds of meetings—good, bad, and terrible. Certain meetings planned with all possible care have been dismal failures, while others with less-systematic planning, have been booming successes. However, this is no more an endorsement of slipshod planning than is the occasional success of a careless farmer as an argument against the ways of his successful neighbor. Both are exceptions to time-accepted rules. A careful analysis of successes and failures will gradually bring about revisions in practices from time to time. No two chapters and no two farmers can successfully adopt and use exactly the same practices thruout the year. Our chapter, after 17 years of experience has adopted the following general procedure for its regular monthly meetings:

1. Meeting Room—Dress up the room. Keep it in good order, and properly arrange the officer stations. Provide plenty of chairs.

2. Punctuality—Start on time. Punctuality can be a habit just as easily as not.

3. Uniformity of Programs—To avoid stereotyped monotony, the following parts are handled by a different member for each meeting:

a. "What Other Chapters Are Doing"—Material obtained from Kansas Future Farmer, American Farm Youth, etc. Boys are encouraged to select items that might be adopted at Shawnee-Mission.

b. "What's New in Agriculture"—Such reports almost invariably are of a scientific nature, and often open up considerable discussion.

c. "Market Situation"—The success of this item depends on the member making the report. Its most successful use has been where one member has taken over the responsibility for the entire year.

d. "Stunt or Demonstration"—This has varied from the age-old "seeing the moon thru a coat sleeve" to a complicated laboratory demonstration put on by seniors enrolled in chemistry classes. Sometimes the adviser is invited to "see the moon" or explain how "water turns to wine." The evening is a success if he can be put on the spot.

4. Speakers—Last, but far from least is the choice of an outside speaker. Whether his subject be agricultural or otherwise, he must know how to talk to, and not down to, boys. It is not felt necessary that the speaker's subject be even related to agriculture. Some of this chapter's best speakers have discussed religion, travel, history, etiquette, and other non-agricultural subjects. Yet, the one sure-fire type speaker is a veterinarian. Every member owns some livestock; and that livestock gets sick occasionally.

5. Refreshments—Just as the postscript is usually the best part of the letters, so is the postscript of an FFA meeting. The inner man must not be forgotten; whether it be boys with cast-iron stomachs or older men with ulcers. Orange-ade, cider and doughnuts, or watermelon, help provide that lingering touch when "good fellows get together."

Our experience with the F.F.A. would indicate that adherence to these procedures governing the conduct of meetings will encourage attendance.

Publicity Director  
Appointed for F.F.A.

THE appointment of William J. Huff as Director of Public Relations and Information for the Future Farmers of America has been announced by Dr. W. T. Spanton, Chief of the Agricultural Education Service and National Adviser to the F.F.A.



William J. Huff

A graduate of Cornell University, Mr. Huff has a broad background of editorial and reportorial experience. While in college he was editor of the Cornell Daily Sun and participated in numerous journalistic activities. Entering the Navy in July, 1941, he was assigned to duty in the Office of Public Relations at the Naval Air Station, Pensacola, Florida, and later served as Public Relations Officer for the Naval Air Training Center, Pensacola. He was recently released to inactive status as a Lieutenant, U.S.N.R., after duty with the amphibious forces in the Pacific.

In addition to his service as a publicist, Mr. Huff will act as a liaison with representatives of business and industry for the Future Farmers of America on behalf of the F.F.A. Foundation. He will prepare news and feature stories about the F.F.A. and the vocational agriculture program for release to the daily press, radio, magazines, and farm publications.

Some adjustments have been made in the administrative setup in Vermont which provides for a full-time teacher-training position at the University which will be handled by Cola Watson. W. Howard Martin, Business Manager for the *Agricultural Education Magazine*, is now devoting all of his time to supervision with the result that mail should be addressed to him at the State Department of Education; Montpelier.

D. J. Howard, who served as State Supervisor of Agricultural Education in Virginia since 1942, has been appointed Assistant State Superintendent of Public Instruction, replacing Dr. Walter S. Newman who resigned to accept the vice-presidency of Virginia Polytechnic Institute. Mr. Howard is national treasurer of the F.F.A. and chairman of the editing-managing board of the *Agricultural Education Magazine*.

Frank B. Cale, District Supervisor of Agricultural Education in Virginia since 1931, has been named State Supervisor of Agricultural Education to succeed D. J. Howard.

Dr. O. C. Aderhold has been advanced from the position of Professor of Agricultural Education at the University of Georgia to the Deanship of the College of Education. Doctor Aderhold was editor of the *Agricultural Education Magazine* from 1942 to 1944.

The Program of Agricultural Education  
at Los Banos, California

HOWARD F. CHAPPELL, Regional Supervisor, Los Banos, California

THE West Side Union High School at Los Banos, California, takes pride in the fact that it does not stop its agricultural program at the time of the graduation of its Future Farmer members but continues to offer education, recreation, and social life to its agricultural alumni thru a Young Farmers' organization composed of approximately 60 young men actually engaged for the most part in the business of dairy farming.

The program in agricultural education at this school starts when a boy is invited to attend F.F.A. meetings the summer before he enters high school in the fall. Upon enrolling in freshman agriculture, he finds himself associated with approximately 45 other country boys in the agriculture department. Ninety-five percent of these boys are from dairy farms and nearly 100 percent of them raise Holstein cattle.

Program for F.F.A.

With a dairy background such as this, naturally the class instruction is based upon dairy-calf raising, dairy-heifer management, dairy-cow management, feeding cows for production, dairy-cow selection and judging, dairy-bull selection, dairy-bull management, dairy sanitation, controlling cattle diseases and parasites, secretion of milk and milking, registering and transferring purebred cattle, dairy-cattle breeding problems and systems, testing milk for butterfat, fitting and showing dairy cattle, and dairy-farm planning. Forage and hay crops consumed by dairy cows such as alfalfa, permanent pastures, Sudan grass, barley pasture, and corn silage are also given to all boys under an organized instructional program.

This classroom instruction is liberally supplemented with field trips where the boys learn dairy skills and see and perform practical demonstrations of the scientific principles learned in the classroom.

Each boy in the agricultural department has a home "farming program" generally consisting of a registered Holstein bull and a few Holstein heifers and calves. The junior and senior boys also have from 1 up to 15 head of Holstein cows in milk. These dairy-cattle projects are often supplemented with a field crop of pasture or alfalfa farmed with Dad on a share or rent basis.

If we should step into Instructor Arthur Child's classroom at this agricultural department on a Monday, we'd find each boy working on his "farming program" record book, entering his expenses and receipts of the past week. At the end of the year he has a record of the cost of producing a pound of butterfat, a

ton of alfalfa hay, a heifer to milking age, or maintaining a breeding dairy bull.

The farm-mechanics program at this school is closely aligned with the classroom and farming program of these F.F.A. boys. Here, under the capable guidance of L. P. Hillman, these boys build and repair hundreds of pieces of farming equipment each year. A quick look in this shop would show us from 5 to 10 cow trailers in various stages of construction, 2 to 3 dairy hot-water heaters, 2 to 5 Jackson forks being repaired, a scraper under construction, several calf hay feeders, numerous sections of steel and oak harrows being assembled, land floats, horse scrapers, hay derricks, and many other pieces of farm equipment.

Program for Y.F.A.

Upon the termination of their high-school career these agricultural boys go into the Los Banos Young Farmer organization. Ralph Bove, a former Chapter F.F.A. president, State and American Farmer, is president. Eleven of its members are State Farmers. This organization meets once a month for a business meeting and an educational program.

A quick glance at the secretary's book shows us the following topics were on their educational program in the last 15 months: dairy-cattle diseases, dairy-cattle breeding, new crops (varieties and management), California game laws, soil conservation, meat packing, house operations, water and irrigation, dairy-cattle outlook, social diseases, fairs and exhibiting, agricultural credit, and dairy-bull selection.

Where else can a young man actually engaged in farming go to hear, take part in the discussions, and ask questions about topics such as these? The topics were presented by men who are specialists in their respective fields—veterinarians, farm advisers, a production credit secretary, a game warden, a canal-company surveyor, doctors, a dairy-cattle fieldman, a professor, a fair secretary, and a superior-court judge.

Other outstanding achievements of these Young Farmers include:

1. Organizing the West Side Holstein Breeders' Association, later reorganized into the Merced County Holstein Breeders' Association.

2. Purchasing government wheat cooperatively in carload lots.

3. Cooperating with the Future Farmers in a dairy-cattle fair. Thru this fair, enough public interest was aroused to formulate a fair, so this May the Merced County Fair was held in Los Banos.

4. Introducing eight high-quality Holstein bulls and 55 registered Holstein cows into the Los Banos area.

5. Cooperating with the extension service in helping the local 4-H club by serving as leaders.

6. Purchasing 18 of the 51 head of cattle sold at a recent extensive Holstein dispersal at Tulare, and purchasing the top-selling bull at the California Holstein sale in November.

The Los Banos Future Farmer Chapter (boys in school) also has a number of outstanding achievements of which it can be proud. Immediate past president of this chapter is Harold Coelho, now president of the California Association of Future Farmers. The Los Banos group:

1. Produced more food for victory per student last year than any other Future Farmer chapter in California (mostly milk).

2. Sold over \$147,000 worth of bonds at two livestock bond auctions.

3. Was one of 24 chapters to receive "Master Chapter" rating this year.

4. Had eight members elected to state Future Farmer degree in the last three years—four this year.

5. Offered such community service to the Los Banos area as testing cows for butterfat, treating cattle for grubs, de-horning, vaccinating, etc.

6. Introduced 51 head of registered Holstein bulls and over 100 head of dairy heifers and cows (51 registered) into the Los Banos area in the last three years.

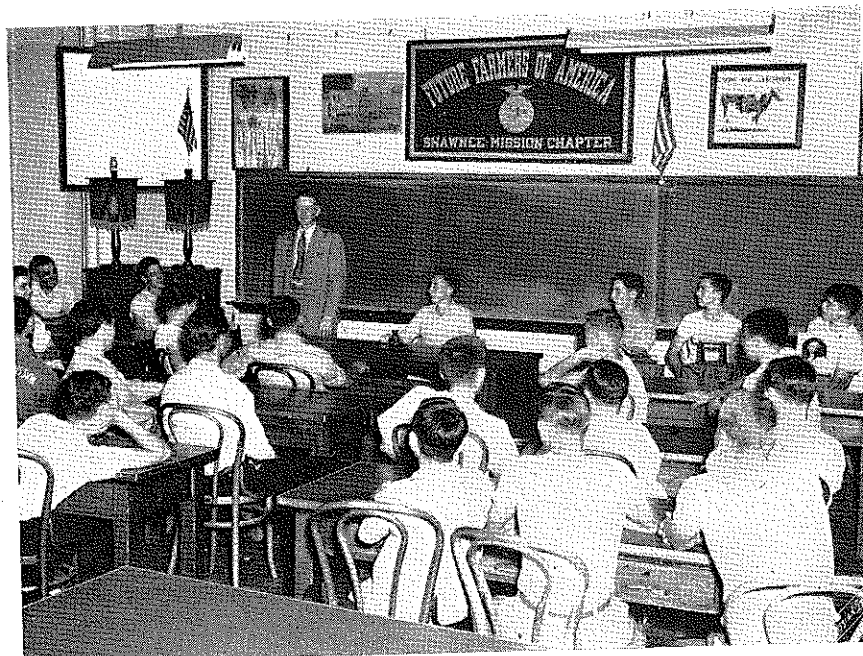
7. Sponsored a Future Farmer, 4-H Club, and Young Farmer dairy-cattle show for the past three years. Last year 144 head of dairy cattle were exhibited plus poultry, sheep, hogs, and farm mechanics.

Probably the outstanding achievement of these two organizations in the dairy-cattle field has been the introduction of good purebred bulls. The increased value of the daughters of the 59 purebred bulls introduced is hard to figure, but assuming each has 20 daughters that developed to maturity, that would be 1,180 daughters. Nearly all these bulls went into grade herds so an increase of 10 pounds of butterfat per year over their dams is reasonable. If these 1,180 daughters milk for three lactations, that would be an increase of 30 pounds of butterfat. 30 times 1,180 equal 35,400 pounds of butterfat. 35,400 times 86c per pound equals \$30,440 increased income.

Teacher Has Cooperation  
of Principal and School Board

Back of all Future Farmer and Young Farmer programs has been L. J. Spindt, local high-school principal, who has encouraged and cooperated with these boys and young men in improving their farming programs. Without his cooperation many of these worthwhile achievements would never have been possible or probably even attempted.

The local high-school board composed of Tom Mott, Harry Fawcett, Frank Arburua, Joe Enos, and R. Gardner, Jr., have also been very cooperative with the local agricultural department.



Dr. Albert Coates, veterinarian, associate member of Shawnee-Mission Chapter, American Farmer, and past national officer is speaker at a June monthly meeting of the chapter

# Keeping Abreast of Subject Matter While Teaching

H. M. BYRAM, Teacher Education, Michigan State College, East Lansing, Michigan\*

**DURING** the four years of reduced college enrollments of persons preparing to teach vocational agriculture increased emphasis has been placed upon in-service education staffs have had a splendid opportunity to develop and try out new forms of in-service education and to improve upon others.



H. M. Byram

Members of teacher-education staffs in the past have visited teachers in service, have assisted in conducting conferences, have taught graduate courses, and in other ways have helped teachers to improve their programs and their methods of teaching. Teachers have appreciated this help, but generally they have felt a need for much more help in subject matter than they usually have been able to get. In Michigan, teachers have expressed a feeling of need for in-service help on the subject matter of agriculture, and a new type of in-service education was inaugurated in 1945.

### Principles of In-Service Education

In planning for in-service help to teachers of agriculture several guiding principles or ideas have been kept in mind. The first of these is that teacher-training service should be based upon teacher request. A necessary corollary of this is that teacher-trainers and supervisors should assist teachers in analyzing their needs.

The third principle is that subject-matter help should be specific. It should be carefully selected and given on phases that should be included in the all-day, young-farmer, or adult-farmer classes. Before laying any plans for presenting

subject matter the question should be raised: "Where, in your instruction program, do you propose to use this subject matter?"

Subject matter should be given to teachers in such a manner as to develop essential understandings and abilities. It should be carried to the doing level. This had been carried out in the other types of in-service training, including workshops for teachers of farm mechanics, of which three were conducted for 42 teachers in Michigan this year; in soils workshops, of which three were conducted this year for 43 teachers; and in cannery workshops. For example: in the soils workshop teachers developed the abilities to make tissue tests, to run levels, to determine drainage lines and to make a farm plan for an actual farm to meet soils needs. †

When subject matter is presented to teachers it is desirable that the better methods of presentation be used. In applying this fifth principle a heavy responsibility is placed on the teacher-trainer to orient the subject specialist to teachers' needs and to help him find desirable methods of presentation.

Of course, it is rarely possible to simulate agricultural classroom conditions. So, if the subject matter is to be truly "professionalized" the presentation should be accompanied by suggestions as to its use in instruction, e.g., in the soils workshop previously referred to a discussion on how to teach adult farmers to make and interpret tissue tests and other tests of nutrient deficiency.

Learning is an active process. It follows that in-service assistance should involve as much as possible preparation by and active participation by teachers. A prepared lecture will not do. Questioning, discussion, and doing by teachers should be involved.

Most teachers have tried out some of the visual aids on the market or from commercial concerns. They have found



Teachers located in a general farming area asked for and received help on problems of small-fruit production for family use. They are here observing a demonstration by a specialist of an approved method of pruning grapes

many of them inadequate and some utterly unsuited or out of date. This also can be said of some of the bulletins and other reference material available. Effective training should include preparation of instructional aids, tested by teachers and educationally sound.

Many agencies and institutions either have actual or potential resources which may be of value to teachers of agriculture, particularly technical information and experience. In-service training should involve full cooperation among educational and agricultural agencies and services.

In the last analysis, all activities designed to improve teachers in service, should be co-ordinated regardless of who or what agencies give the help. Land-Grant Colleges of agriculture typically are the authorized institutions for preparing teachers of agriculture. This co-ordination of teacher-training activities and services emanating from various departments of the institution should be done by the department of agricultural education.

### Why a New Type of In-Service Education Program Was Inaugurated

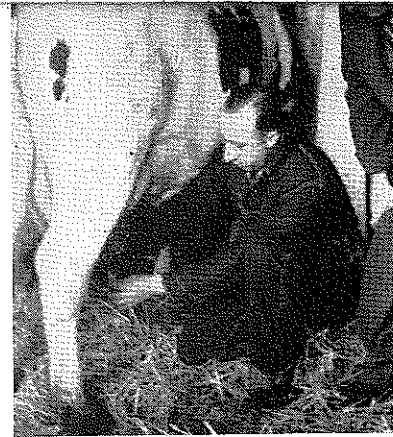
It was not alone the desire to apply the foregoing principles that prompted the creation of a new in-service program in Michigan. Specialists had called attention to teachers' requests for help. Sporadic attempts had been made in the past which showed the demand. However, these attempts lacked co-ordination from the teacher-education staff because they were largely localized affairs.

It had been found that there existed evident gaps in the pre-service program, and veterans and others returning to teaching had been asking for information on new developments in agriculture.

Finally, it was felt that if a more efficient use of time by the staff in teacher-training could be found it should be used. Experience with workshops revealed that this better use of time might involve teamwork with other departments.

### How the Plan Operates

So a new plan of in-service help was evolved which basically involves close cooperation with the college extension service. At Michigan State College most of the off-campus, and non-credit education in technical agriculture is con-



A specialist in veterinary medicine, after having discussed the cause and symptoms of mastitis, demonstrates to teachers in service how to take a sample of milk for mastitis test

ducted thru the extension service. This service and vocational education in agriculture have enjoyed close and genuine cooperation. This is due in part to complete absence of any affiliation by the extension service with any farm organization; in part to personalities; and in part to a feeling on the part of the Dean of Agriculture and the Director of Extension that the college depends upon and owes considerable service to the teachers of agriculture who were educated there. The plan as eventually evolved, then, includes five simple steps as follows:

1. Request for assistance from a group of five or more teachers.
2. Analysis of needs by the group, with assistance of a teacher-trainer or supervisor.
3. Specific, detailed request to the teacher-training department.
4. Assignment of a teacher-trainer by the chairman of agricultural education and of a subject specialist by the assistant director of extension.
5. Cooperative planning, preparation of materials and scheduling of one or more meetings by the two men assigned.
6. Meetings of teachers conducted by the teacher-trainer and subject specialist working as a team.

### How the Plan Operates With a Typical Teacher Group

In order to point out details of how the plan works let us take one Michigan group, namely, the teachers of Montcalm County. This county is in the dairy-potato area, although some general farming is practiced. There are six departments in the county and two nearby, whose teachers were invited by the county group. Following an invitation by the chairman of the teachers a member of the teacher-training staff met with the teachers and the county agent and helped them determine what they wanted.

The teachers said, in effect: "The state F.F.A. potato-marketing show is located in this county. We want some help on how to get boys to produce high-quality market potatoes. The state F.F.A. purebred-sow-and-gilt sale is to be held in an adjoining county next spring. We want to be able to train our boys so they can produce good breeding stock for this sale. Our boys have been keeping dairy-production records for several years. How can we use these records to improve the breeding herd and in other ways? How

These, and other questions, together with tentative suggestions on seasonal character of the needs, eventually were forwarded to the writer, who, as chairman of agricultural education, made staff appointments and asked the extension service for help. Specialists were assigned and met with the teacher-trainers. A meeting was planned for November on swine, one each for January and February on dairy, and one in March on potatoes. The potato meeting later grew to two, with the second one scheduled as a field day in August.

### Scope of the Program for 1945-46

During the year 1945-46 eight different groups of teachers from 75 departments have been given in-service assistance on subject matter. A total of 28 meetings have been held, or an average of 3½ per group. These meetings typically have been augmented by the county agricultural agent, a farmer, and occasionally a principal or person from a related agency. Three groups have been single-county groups. Two involved two counties each, one three counties, one in northwest Michigan seven counties (13 departments), and one the entire upper peninsula. One group has had only one meeting. But another asked for and got six.

Of these 28 meetings no two were alike, even though they might have dealt with the same enterprise, because they were based upon teachers' problems related to the area in which they were located. Nine were on dairy, five farm management, three potatoes, three agricultural engineering, two horticulture, two poultry, and one each in sheep, livestock skills, soils and landscaping. The workshops in soils and farm mechanics explain the small number dealing with agricultural engineering and soils.

Although no systematic evaluations by teachers have been attempted the general impression seems to be decidedly favorable. It is anticipated that the groups requesting in-service help in subject matter will want a similar program next year, and that the number of teacher groups and teachers served may double.

It must not be inferred that there are no difficulties or problems involved in this in-service education project. Teachers have not always been fully oriented to the use which they are to make of subject matter sought. There is a tendency for them to ask for more than they can "digest" at one time. The teachers who are located close to one another are easiest to serve. The isolated teacher thus far has not benefited.

From the college staff standpoint there also are weaknesses in the plan. Thus far, the resident staff in agriculture has participated less than the extension staff. Thus, the teachers' needs may not be reflected in modifications of courses taken by students preparing to teach.

The project is expensive in terms of travel and time of teachers and teacher-trainers, although probably not nearly as expensive per teacher served as is individual visitation. When the teacher-training staff works on this in-service project their time on other phases of the program tends to be reduced.

### Advantages and Results of the Project

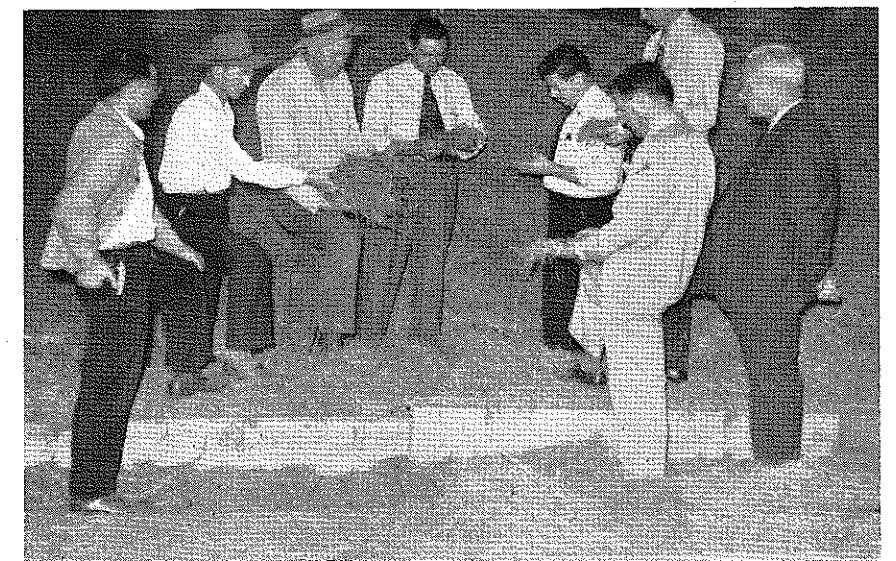
Notwithstanding these weaknesses all members of the staff and the supervisory staff are enthusiastic about it and feel that it is one of the more effective in-service training activities being carried on. In the first place, teachers have received subject matter they want and need to meet current demands in their local situations. As contrasted with typical extension meetings held for farmers, teachers have been free to raise questions and to discuss problems to an extent not possible before. In the process of meeting these needs, teachers have been given assistance and encouragement in cooperative planning.

This project has made it possible to give guidance to the subject specialist in selecting material to be presented and in methods of presentation. For example, a specialist in horticulture preparing to give a demonstration on pruning small fruits was given suggestions on techniques of teaching a job which the teacher-

(Continued on page 77)



In-service education includes, among other things, the learning of new skills. This teacher is getting practice in improved "belly" method of castrating swine



After examining air ducts of a mow hay dryer, teachers inspect and discuss chopped hay with farmer



# Farm Mechanics

R. W. CLINE

## Research in Agricultural Engineering\*

ARTHUR W. TURNER, Assistant Chief in Charge of Agricultural Engineering Research, U. S. Department of Agriculture



Arthur W. Turner

LET me review briefly some of the thinking that is being done on present and future research primarily in fields of agricultural engineering, with which I am quite familiar. First, I should like to say that the primary objective in public-service experimentation in agricultural engineering is to work out basic principles or procedures. Unlike other fields of science, engineering results generally cannot be applied directly by farmers. Once the basic facts are discovered, they need to be adapted by industry for use on the farm thru the manufacture of new products or improvements on existing equipment. Of necessity, therefore, our work is highly cooperative with the manufacturers of farm equipment. It is also cooperative with a part of other sciences. It has been estimated that more than 85 percent of all agricultural research has engineering applications.

One of the newer ideas in the field of agricultural engineering now looming on the horizon is that of multiple-use equipment. Farmers now often use a machine for only a short time each year. It would be desirable to design machines with attachments that would not only increase the efficiency of the equipment but if the principle were generally applied also might materially decrease the producer's machinery investment.

It might be possible thru research to develop a single basic machine that, with suitable attachment, could be used for all or nearly all the operations of producing a crop, from seedbed preparation to harvesting. Again it might prove feasible, thru research, to develop a machine that would enable farmers to perform several operations at one time, such as seedbed preparation, fertilizer placement, and planting. Preliminary work on fertilizer placement by engineers in the U.S. Department of Agriculture has already provided the background for some such machine. One manufacturer has built a 3-in-one planter for corn, cotton, or peanuts that permits saving one-half the time normally required for planting crops with one-mule equipment. Use of this machine enables one man to open beds, put in fertilizer, and plant, in one operation. Many additional phases of multiple-use equipment would seem worthy of investigation.

Another important project of ours is

the fertilizer-placement studies. The objective is to determine, by experimentation, where to place each kind of fertilizer with respect to seed, seed piece, or plant of any particular crop. The proper location may vary depending on such factors as composition of the fertilizer, type and condition of soil, kind of crop, root characteristics, climate, and moisture conditions. While the end point of proper placement is increased yields consistent with maintenance of quality, the agricultural engineers' province is to devise mechanisms and machinery to place the fertilizer at any place desired in the study. The most advantageous location of the fertilizer is of utmost importance to the farmer, and can be determined by cooperation of several groups of agricultural specialists—agricultural engineers, soil scientists, agronomists, and fertilizer chemists. The work to date includes 600 experiments conducted on 34 crops in 25 states.

### Crop Machinery

The work in agricultural engineering research is carried on largely at field stations and laboratories. The crop-production-machinery studies include developments of equipment for handling such crops as sugar cane, peanuts, sweet potatoes, tung nuts, sugar beets, as well as hay, corn, and cotton. One of our most significant recent developments is a sweet-potato-vine harvester for the South. It consists of a mechanism for cutting the matted vines loose from the hills and adjacent rows and a mechanism for elevating the vines. Successful use of this machine made it necessary for our engineers to devise a system of constructing and maintaining the sweet-potato beds to facilitate harvesting both the vines and sweet potatoes. Their work is based on the ideas that the sweet potato vines have an economic value and should be saved for feed, and that digging equipment should be improved to bring all the roots to the surface so that none will be missed.

Recently also our work has been expanded to include a project on tobacco, specifically to improve methods and equipment used in the flue-curing of this crop. Tobacco is still being produced and cured in this country much as it was 75 years ago. One of our engineers studying the problem has stated that approximately 5 million tons of green tobacco are now handled by hand at least eight times during the curing process, and after the tobacco is cured it is handled at least that many more times. Tobacco producers want to eliminate some of the labor connected with the crop and are looking to engineers for help in doing so. Our engineers are working on development of new sugar beet machinery. They have

under test machines that ground top the beets, lift them, and deposit them in trucks. Perhaps even more significant is the work they have done on the single-seed planter. As a result of this work, the use of sheared or segmented seed has become general in the industry. One of the engineers who was largely responsible for the new planter said recently that between 80 and 90 percent of the sugar-beet acreage of the United States is being planted with segmented seed, yet at the beginning of the war the acreage so planted was limited to one very small experimental plot in California.

### Farm Electrification

It would be possible for me to tell you more about our machinery work, but I must pass on to other phases. Let us consider farm electrification. Despite the rapid progress in this country in extending electric lines, development of income-producing uses of electricity on farms has not kept pace. If farm families are to use this service to full advantage in both the home and on the farm and amortize the installation investment, research to develop new uses or expand existing uses needs to be speeded up and expanded. During the war public-service research in this field was limited, but recently it has been possible to reconstitute our Division of Farm Electrification Research and to begin planning a new program.

The horizons for this new program appear almost limitless. Let me give you an example of some of the possibilities in one limited phase of electrification—the use of light and radiant heat on farms—as outlined recently in one of the technical engineering journals.

Among the new developments mentioned was the germicidal lamp. It holds promise of saving large quantities of food now spoiled by molds. In application of infrared radiation for heating there is another field for research. Light has already been used to speed up plant growth and vegetable yields have been greatly increased by experimental use of artificial light. With tomatoes increased yields of as high as 70 percent have been obtained experimentally. New types of plants have been developed by treating seed with X-rays, and black light has been used to climinate defective seed—ring rot in potatoes for example—thus saving loss of time and labor in planting.

Use of artificial light is a generally accepted practice in poultry husbandry, but it is possible that germicidal radiation might eventually be used to reduce mortality from air-borne diseases, and sun lamps to increase egg production and the nutritive value of the egg. Experimentally pig production has been increased 30 to 50 percent by use of lamps in baby-pig brooders. This means more than saving one out of the three pigs per litter that now die; it means saving 250 pounds of feed, as it requires that much feed for the sow to bring each pig to birth.

about the work of our Division of Mechanical Processing of Farm Products. This Division seems destined to expand into a rural farm industry division. Its present research projects include studies in processing of fiber flax, cotton ginning experiments and development of machinery to handle mechanically picked cotton, and studies of sanscvieria and other hard fibers. As the primary processing of farm products for market moves nearer the farm and into rural areas close to the point of production, the need for proper engineering in these plants will increase. If they are to compete with the larger more-centralized industrial establishments, it will be necessary that they be equally efficient. Research work of the division might well be expanded to include engineering studies in creameries, cheese factories, community soybean-crushing plants, tung-nut crushers, elevators and feed mills, community canneries and locker storage plants, and fruit and vegetable storage and packing centers.

### Farm Structures

Another phase of agricultural engineering research that may be of interest to you as teachers of vocational agriculture is the work on farm structures. All of us will agree, I am sure, that we are facing a decade of unprecedented activity building. Buildings on farms have been neglected since the depression of the early thirties. When incomes permitted expenditures, labor and materials were not available. Now, however, many farm families have saved substantial sums for remodeling or building new homes, barns, and other necessary structures.

The mere expenditure of money will not, however, produce farm buildings functionally better than those now in use. Most of the existing buildings have numerous shortcomings. They are, among other things, wasteful of labor, not adapted to maximum production of livestock or to best preservation of quality in stored crops, not built to meet desirable sanitary standards, and inadequately protected against wind and fire hazards. Farmers, builders, and manufacturers need a great amount of basic information about the best type of buildings for use under different climatic conditions and for each type of farming if these shortcomings are to be avoided in future construction.

In connection with the farm-structures research I should like to tell you something about a new project of ours being undertaken with the cooperation of the Bureau of Animal Industry, Dairy Industry, and Poultry Husbandry, and with several states. At the University of Missouri, we are building a psycho-energetic laboratory for cooperative studies of animal housing, primarily with dairy cows. The laboratory will be so constructed that it will be possible to control all features of the environment in which the animals live. For the first time it will be possible to obtain scientific data on functional requirements of animals, and to determine in dollars and cents just how much the farmer pays for failure to provide conditions that will enable his livestock to produce at their highest productive level. Similar research with poultry will be carried on at the Agricultural Research Center at Beltsville in cooperation with the Bureau of Animal

fornia with hogs and other animals. By conducting the tests at widely separated points it is hoped to obtain data applicable thruout much of the country.

Closely allied with studies of animal housing and design of other farm structures are now investigations of ways and means of saving labor in buildings and about the farmstead. Such studies have led to great advances in efficiency in industry and the same techniques can be applied in farming operations. In our studies of farm structures and their design we are trying to determine the optimum conditions necessary for storage of various farm products. Only by providing such information can storage buildings be designed that will enable farmers to hold their crops for a favorable market and to prevent large losses of food products thru faulty storage.

In the application of research findings in your supervised farming projects, teachers of vocational agriculture have both an opportunity and a responsibility. Not long ago, for example, I was in a meeting of agricultural engineers in which the subject of farm building was under discussion. One point emphasized again and again was the need for training farmers, particularly youth, in the knowledge and appreciation of good construction such as carpentry, masonry, and plumbing.

Training in these fields may seem out of place in your projects. Yet farming is many things; it is agronomy, and animal husbandry, engineering, marketing, and perhaps a hundred other things. It is taking care of little pigs and getting the oats planted on time. It is running after those half-feathered chicks when the spring storms come. It is also carpentry, and mechanics, and plumbing, if the occasion demands. Men with the construction skills are now almost totally lacking in many rural communities. In the main, farmers cannot pay the high costs necessary when labor must be transported to a considerable distance from the city to these jobs. If farmers are to have homes and buildings functionally adequate, many will have to have sufficient basic knowledge and appreciation of good construction to evaluate the work being done and if necessary to supervise the construction jobs themselves. Possibly some of the boys in your classes may find this a profitable vocation. Here then is an example of a field in which vocational teaching can be geared not only to research findings but also the current needs of farming.

## Keeping Abreast

(Continued from page 75)

trainer wanted demonstrated, in addition to the techniques of pruning. A farm-management specialist accompanied the teacher-trainer to three meetings for teachers in one area who had asked help to prepare for teaching adult classes. It was possible in advance to give the specialist many suggestions on the content of such an adult course and on the specific farm-management information wanted by the teachers.

Good methods of teaching are demonstrated and discussed. In one meeting a teacher had previously arranged for a visit to a farm that was well landscaped and one that had had no landscaping done on it whatever. For the latter farm he had made a drawing of the farmstead

Following the visit by the group of teachers to both farms the specialist conducted a workshop period during which he guided the group in working out a landscape plan for the farmstead. The teacher-trainer then led a discussion on the use of similar field trips and workshop technique with all-day and adult classes.

In another meeting practical procedures in culling a farm poultry flock were demonstrated. The demonstration and practice were planned and conducted to show how a teacher and his boys might best work together in developing the same ability in the boys.

### Teachers Gain in Self-Confidence

As a result of these in-service meetings an increased feeling of confidence is developed, as well as an improved professional attitude. Also, work with technical specialists has uncovered published and unpublished materials which teachers are glad to get.

There are some real advantages of the plan from the viewpoint of the teacher-education staff, too. Training in subject matter is recognized as a phase of teacher-training. Some direction by the teacher-education department of that phase of teacher-training is now possible. The relationships with the extension service and the college staff in technical agriculture have all been improved.

### Teacher-Trainers Learn, Too

Finally, but by no means a small advantage, the staff member in agricultural education benefits. He is brought up to date on agriculture, and he himself gains self-confidence and increased respect of teachers. The writer is of the belief that most teacher-trainers in agriculture probably were best informed on technical agriculture the last year they taught vocational agriculture, and that with each succeeding year of experience as teacher-trainers the gulf between their knowledge and abilities in modern agriculture and that of the well-informed teacher progressively widens. Recent information on mastitis control, belly castration, D.D.T., 2,4-D, fruit varieties, methylene-blue test, cooking test for potatoes, home-built freezer units, mechanical gutter cleaners, wetting agents, and hay dryers, to mention only a few, represent substantial additions, at least to the writer's knowledge of technical agriculture. Most of this addition would not have been made had it not been for the in-service education project just described.

The future, no doubt, will see many revolutionary changes in agriculture. The problem of keeping abreast of these changes is tremendous for teachers of vocational agriculture with heavy schedules and who have terminated their formal education. In-service work with informal teacher groups thru cooperation of subject specialists may be a partial answer to the problem.

W. Howard Martin, Business Manager of the Agricultural Education Magazine, has again changed positions. His new assignment is that of Associate Professor of Education at the University of Connecticut, Storrs, Connecticut.

Alfalfa is the only common field crop to suffer materially from a lack of boron.

\*Excerpts from an address before the Schoolmen's Week, Section of Agriculture, University of Pennsylvania, Philadelphia, Pennsylvania, March 29, 1946.

# Developing a Challenging State F.F.A. Program of Work

H. N. HANSUCKER, Assistant Supervisor, West Virginia

"DEAR State Adviser, when will we receive the new State F.F.A. Program of Work? If it has been mimeographed, please send it to me at once. We need it to follow in planning our chapter's program of activities for next year." This letter is typical of the numerous requests received in the state office from chapter secretaries near the end of each school year and throught the summer until the need is met. It is indicative of the increasing use chapters are making of State Programs of Work and of the importance placed upon them. It is a challenge to the State F.F.A. Association to "set the pace" chapters should follow.

Seldom, if ever, are local chapter programs of work more inclusive of worthwhile activities, well distributed among the major divisions, than is set forth in the state program. Such effort by the state to co-ordinate and unify the work of chapters by recommending specific objectives does not mean dictation by the association. It indicates good leadership. Also, an effort to insure maximum cooperative action in accomplishing improvements needed in the state and nation as well as in the local area.

The fact that the West Virginia State Program of Work includes 110 objectives does not mean that all chapters must accomplish every one of them—neither does it penalize chapters from including other items of a local nature. The broad state program, however, does simplify the job of local planning since it suggests important activities which many chapter committees would not think to include. For example, few chapters included objectives on safety, fire prevention, establishing farm shops, exhibits at fairs, or parliamentary-procedure demonstrations until they were first included in the state program. Now, every chapter includes them as a "must" activity.

The program of work of the West Virginia Association when formulated, mimeographed and distributed serves two purposes: It includes a list of the objectives to be attained under each major division and also serves as the chapter's final report form on accomplishments at the end of the year. Point values are assigned each objective and chapters rate themselves on their accomplishments in terms of the perfect score as illustrated in the accompanying chart.

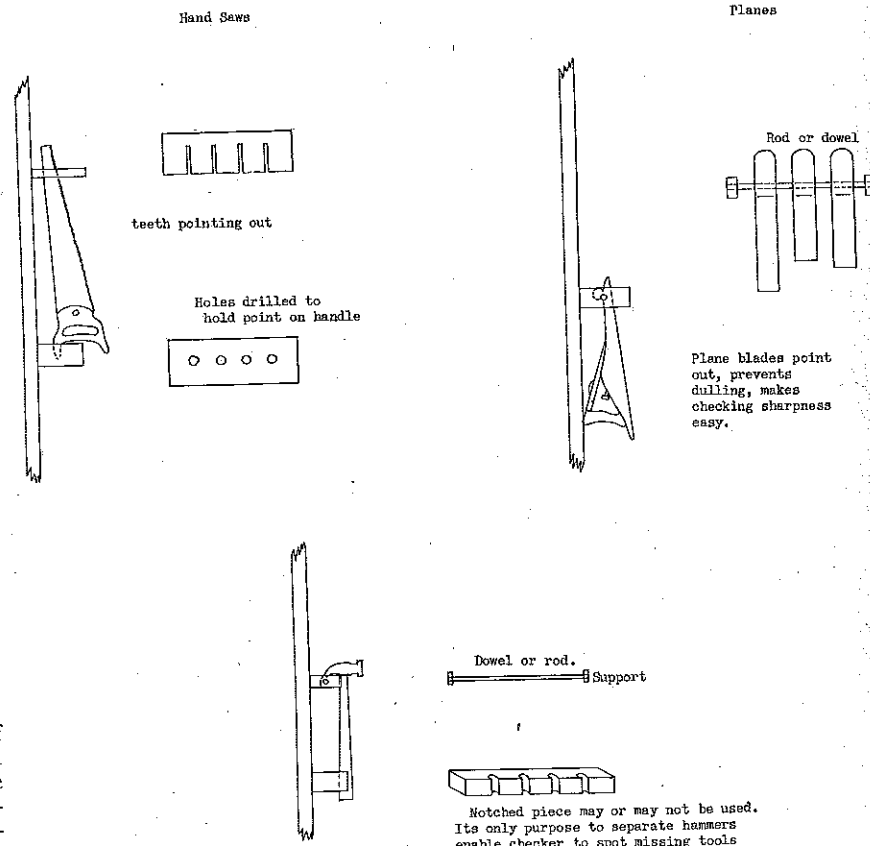
The state association's program of work is planned by the state officers and advisory council working as a committee in advance of the annual state F.F.A. Convention. Much time is spent in developing the program. Suggestions for revising and improving the objectives of the previous years are secured from each chapter by use of a questionnaire. This information plus letters and recommendations from various state organizations and agencies, plus F.F.A. programs of work from other states and the national organization are used as references.

When the state program is thus formulated, the committee chairman, usually the retiring state president, presents it to the delegate body at the state convention for their deliberation and action. The report, usually mimeographed, is presented at the beginning of the convention with

final action postponed until a later session. In this way, all delegates have an opportunity to study and familiarize themselves with the program so as to discuss and make necessary revisions in it before final adoption. When approved the state program is then mimeographed and copies sent to each chapter together with suggestions for using it in planning their local F.F.A. program.

Chapter programs are planned according to the form recommended on page 34 in the (Rev. 1945) F.F.A. manual and includes not only the goals and objectives but ways and means for accomplishing them. Two copies of each chapter's program is sent to the state office by November 15 of which one copy is forwarded to the national office as an official entry in the National Chapter Contest.

A well-planned program of activities with which all members are familiar is the first essential for a successful chapter. The extent to which such a program is challenging to individual members on the local level, so also is the state association's program challenging to chapters.



The editors desire to have teachers of vocational agriculture make more use of their magazine as a medium for the exchange of ideas such as that presented herewith by L. L. Gibbons of Fort Collins, Colorado. Space will be reserved for this if the idea appeals to the readers.

The items may deal with any topic and need not be over 200 words in length. Prints or other forms of illustrations may be attached. Please send contributions of this nature directly to the editor.

### A Handy Tool Rack

Every shop is equipped with a number of hammers, planes, and hand saws. Where space is limited the ideas shown below have proved equally satisfactory for use in a tool crib on a wall cabinet. This method of racking has the following advantages: Tools are instantly available, they are easily checked for number and position, condition of teeth and blades can be determined without removing tool from rack, the items are held securely with no broken tools resulting from dropping out of the rack, space required is at a minimum as indicated by the fact that 10 hand saws can be racked in a wall or cabinet space only 24" x 28".—L. L. Gibbons, Fort Collins, Colorado.

Objective	Points Allowed	Points Awarded	Chapter's Accomplishments
Item IV Leadership			
1. Chapter participate in the federation parliamentary-procedure contest	15		1. (a) . . . . . (yes or no) (b) Number members on team . . . . .
2. All members participate in chapter public-speaking contest	20		2. Number members participating . . . . .
3.			

Notched piece may or may not be used. Its only purpose to separate hammers enable checker to spot missing tools

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- A. H. Hollenberg—Farm Mechanics
- s—supervisors d—directors rs—regional supervisors
- ds—district supervisors ts—teacher-trainers it—itinerant teacher-trainers
- rt—research workers nt—negro teacher-trainers sms—subject matter specialists

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  - d—R. E. Cammack, Montgomery
  - s—J. C. Cannon, Montgomery
  - as—H. F. Gibson, Auburn
  - as—T. L. Faulkner, Auburn
  - as—H. W. Montgomery, Auburn
  - ds—H. R. Culver, Auburn
  - ds—L. L. Sellers, Auburn
  - t—S. L. Chesnut, Auburn
  - t—D. N. Bottoms, Auburn
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  - as—A. J. Andrews, Springfield
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  - it—H. B. Taylor, Lafayette
  - it—E. E. Clanin, Lafayette
  - it—I. G. Morrison, Lafayette
- IOWA**
  - d—L. H. Wood, Des Moines
  - s—H. T. Hall, Des Moines
  - as—D. L. Kinschi, Des Moines
  - as—J. A. White, Russellville
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  - t—S. S. Sutherland, Davis
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  - sms—J. I. Thompson, San Luis Obispo
- KANSAS**
  - d—C. M. Miller, Topeka
  - s—L. B. Follom, Topeka
  - t—A. P. Davidson, Manhattan
  - it—I. F. Hall, Manhattan

- ARKANSAS**
  - d—J. M. Adams, Little Rock
  - s—C. R. Wilkey, Little Rock
  - as—S. D. Mitchell, Little Rock
  - ds—T. A. White, Monticello
  - ds—O. J. Seymour, Arkadelphia
  - ds—J. A. Niven, Russellville
  - t—Roy W. Roberts, Fayetteville
  - t—La Van Shoptaw, Fayetteville
  - nt—J. C. McAdams, Pine Bluff
- KENTUCKY**
  - d—Watson Armstrong, Frankfort
  - s—E. P. Hilton, Frankfort
  - t—Carnie Hammonds, Lexington
  - t—W. R. Tabb, Lexington
  - nt—P. J. Manly, Frankfort

- COLORADO**
  - d—E. C. Comstock, Denver
  - s—A. R. Bunge, Denver
  - t—R. W. Canada, Ft. Collins
- LOUISIANA**
  - d—John E. Coxe, Baton Rouge
  - s—D. C. Lovegne, Act., Baton Rouge
  - as—J. J. Arceneaux, Baton Rouge
  - as—C. P. McVea, Baton Rouge
  - as—C. L. Mondart, Baton Rouge
  - t—Roy L. Davenport, University
  - t—J. C. Floyd, University
  - M. C. Garr,
  - t—A. Lariviere, Lafayette
  - nt—M. J. Clark, Scottsville
  - nt—D. B. Matthews, Scottlandville

- CONNECTICUT**
  - d—Emmett O'Brien
  - s—R. L. Hahn, Hartford
  - t—C. B. Gentry, Storrs
  - t—W. Howard Martin, Storrs
- MAINE**
  - s—t—Thorbert S. Hill, Orono
  - as—t—Wallace H. Elliott, Orono

- DELAWARE**
  - d—t—R. W. Heim, Newark
  - s—W. L. Mowlds, Dover
- MARYLAND**
  - d—John J. Seidel, Baltimore
  - s—t—H. F. Cotterman, College Park
  - nt—J. A. Oliver, Princess Anne

- FLORIDA**
  - d—Colin English, Tallahassee
  - s—Harry Wood, Tallahassee
  - t—E. W. Garris, Gainesville
  - it—W. T. Lofton, Gainesville
  - it—J. G. Smith, Gainesville
  - nt—L. A. Marshall, Tallahassee
  - nt—G. W. Conoly, Tallahassee
- MASSACHUSETTS**
  - d—M. Norcross Stratton, Boston
  - s—John G. Galvin, Boston
  - t—Jessie A. Taft, Amherst

- GEORGIA**
  - d—M. D. Mobley, Atlanta
  - s—T. G. Walters, Atlanta
  - as—George I. Martin, Tifton
  - as—C. M. Reed, Carrollton
  - as—J. N. Baker, Swainsboro
  - as—J. H. Mitchell, Athens
  - t—John T. Wheeler, Athens
  - t—R. H. Tolbert, Athens
  - sms—A. O. Duncan, Athens
  - nt—Alva Tabor, Fort Valley
  - nt—Benj. Anderson, Fort Valley
- MICHIGAN**
  - d—F. B. Elliott, Lansing
  - s—Harry E. Nesman, Lansing
  - s—Luke H. Kelley, Lansing
  - s—Raymond M. Clark, Lansing
  - t—H. M. Byram, East Lansing
  - t—G. P. Deyoe, East Lansing
  - t—G. C. Cook, East Lansing
  - t—Paul Sweeney

- HAWAII**
  - d—s—W. W. Beers, Honolulu, T. H.
  - s—Warren Gibson, Honolulu, T. H.
  - t—F. E. Armstrong, Honolulu, T. H.
- MINNESOTA**
  - d—Harry C. Schmidt, St. Paul 2
  - s—Leo Knut, St. Paul 2
  - as—Carl F. Albrecht, St. Paul 2
  - t—A. M. Field, St. Paul 1
  - t—M. J. Peterson, St. Paul 1

- IDAHO**
  - d—s—William Kerr, Boise
  - s—Stanley S. Richardson, Boise
  - as—Elmer D. Belnap, Idaho Falls
  - t—H. E. Latóg, Moscow
  - t—H. A. Winner, Moscow
- MISSISSIPPI**
  - d—H. E. Mauldin, Jr., Jackson
  - s—A. P. Fatheree, Jackson
  - as—R. H. Fisaackerly, Jackson
  - ds—E. E. Gross, Hattiesburg
  - ds—E. E. Holmes, Oxford
  - ds—V. P. Winstead, State College
  - t—V. G. Martin, State College
  - t—N. E. Wilson, State College

- MISSOURI**
  - d—Roy Seantlin, Jefferson City
  - s—J. H. Foard, Jefferson City
  - ds—Joe Duck, Springfield
  - ds—C. V. Roderick, Jefferson City
  - ds—J. A. Bailey, Jefferson City
  - t—G. F. Ekstrom, Columbia
- MONTANA**
  - d—Ralph Kenck, Bozeman
  - s—A. W. Johnson, Bozeman
  - s—H. E. Rodeberg, Bozeman
  - t—R. H. Palmer, Bozeman

- NEBRASKA**
  - d—G. F. Liebendorfer, Lincoln
  - s—L. D. Clements, Lincoln
  - as—H. W. Dooms, Lincoln
  - t—H. E. Bradford, Lincoln
  - t—C. C. Minter, Lincoln
- NEVADA**
  - s—Lloyd Dowler, Carson City
- NEW HAMPSHIRE**
  - d—Walter M. May, Concord
  - s—t—Earl H. Little, Concord
- NEW JERSEY**
  - d—John A. McCarthy, Trenton
  - s—t—H. O. Sampson, New Brunswick
  - s—t—E. V. Bearer, New Brunswick
  - as—O. E. Kiser, New Brunswick

- NEW MEXICO**
  - ds—Frank E. Wimberly, State College
  - as—L. C. Dalton, State College
  - t—Carl G. Howard, State College
  - t—H. M. Gardner, State College
- NEW YORK**
  - d—Oakley Furney, Albany
  - s—A. K. Getman, Albany
  - s—R. J. Weaver, Albany
  - as—R. C. S. Suthill, Albany
  - as—J. W. Hatch, Buffalo
  - t—Roy A. Olney, Ithaca
  - t—E. R. Hoskins, Ithaca
  - t—W. A. Smith, Ithaca

- NORTH CAROLINA**
  - d—T. E. Browne, Raleigh
  - s—Roy H. Thomas, Raleigh
  - as—R. J. Peeler, Raleigh
  - ds—E. N. Meekins, Raleigh
  - ds—J. M. Osteen, Rockingham
  - ds—T. H. Stafford, Asheville
  - ds—T. B. Elliott, Woodland
  - t—Leon E. Cook, Raleigh
  - t—L. O. Armstrong, Raleigh
  - t—J. K. Coggin, Raleigh
  - t—F. A. Nyland
  - nt—S. B. Simmons, Greensboro
  - nt—C. E. Dean, Greensboro
  - nt—W. T. Johnson, Greensboro
- NORTH DAKOTA**
  - d—A. F. Arnason, Grand Forks
  - s—t—Ernest L. DeAlton, Fargo
  - t—Shubel D. Owen, Fargo

- OHIO**
  - d—J. R. Strobel, Columbus
  - s—Ralph A. Howard, Columbus
  - ds—W. G. Weiler, Columbus
  - ds—E. O. Bolender, Columbus
  - ds—H. G. Kenestrick, Columbus
  - t—W. F. Steward, Columbus
  - it—ds—C. E. Rhoad, Columbus
  - t—A. C. Kennedy, Columbus
  - rt—Ray Fife, Columbus
- OKLAHOMA**
  - d—s—J. B. Perky, Stillwater
  - as—Bonnie Nicholson, Stillwater
  - ds—W. R. Felton, Stillwater
  - ds—S. M. Crosnoe, Stillwater
  - ds—Byrl Killian, Stillwater
  - t—C. L. Angerer, Stillwater
  - t—Don M. Orr, Stillwater
  - nt—Chris White, Stillwater
  - nt—D. C. Jones, Langston

- OREGON**
  - d—O. I. Paulson, Salem
  - s—Ralph L. Morgan, Salem
  - as—M. C. Buchanan, Salem
  - t—H. H. Gibson, Corvallis
- PENNSYLVANIA**
  - d—Paul L. Cressman, Harrisburg
  - s—H. C. Fetterolf, Harrisburg
  - s—V. A. Martin, Harrisburg
  - t—Henry S. Brunner, State College
  - t—William F. Hall, State College
  - it—Russell B. Dickerson, State College
  - t—C. S. Anderson, State College

- Puerto Rico**
  - d—Lloyd A. LeZotte, San Juan
  - s—Nicholas Mendez, San Juan
  - as—Samuel Molinary, San Juan
  - ds—Frederick A. Rodriguez, San Juan
  - ds—Juan Acosta Henriquez, Arecibo
  - ds—Juan Robles, Cayey
  - ds—Andres Ramirez, Mayaguez
  - t—Lorenzo G. Hernandez, Mayaguez
- TENNESSEE**
  - d—G. E. Freeman, Nashville
  - as—J. W. Brimm, Nashville
  - ds—H. N. Parks, Gallatin
  - ds—L. A. Carpenter, Knoxville
  - ds—Ben Douglas, Jackson
  - t—R. E. Fitzgerald, Knoxville
  - t—J. B. Kirkland, Knoxville
  - rt—A. J. Paulus, Knoxville
  - rt—E. B. Knight, Knoxville
  - nt—W. A. Flowers, Nashville

- TEXAS**
  - d—W. E. Lowry, Austin
  - s—Robert A. Manire, Austin
  - s—R. Lano Barron, Austin
  - as—George H. Hurt, Austin
  - ds—B. C. Davis, Austin
  - ds—O. T. Ryan, Lubbock
  - ds—C. D. Parker, Kingsville
  - ds—W. E. Williams, Alpine
  - ds—L. V. Hallbrook, College Station
  - ds—J. B. Payne, Stephenville
  - ds—L. L. Samuel, Arlington
  - ds—J. A. Marshall, Nacogdoches
  - ds—Thomas R. Rhodes, Huntville
  - t—E. R. Alexander, College Station
  - t—Henry Ross, College Station
  - t—E. V. Walton, College Station
  - t—L. L. Moses, Huntsville
  - t—Ray L. Chappelle, Lubbock
  - s—S. V. Burks, Kingsville
  - sms—W. R. Sherrill, College Station
  - it—G. H. Morrison, Huntsville
  - it—J. C. Brown, Kingsville
  - nt—O. J. Thomas, Prairie View
  - nt—W. D. Thompson, Prairie View
  - nt—Paul L. Rutledge, Palestine
  - nt—Gus Jones, Caldwell
  - nt—E. E. Collins, Texarkana
  - nt—S. E. Palmer, Tyler
  - nas—W. M. Collins, Prairie View
  - nt—Oliver Sadtberry, Prairie View
- UTAH**
  - d—E. Allen Bateman, Salt Lake City
  - s—Mark Nichols, Salt Lake City
  - as—Elvin Downs, Ephraim
  - t—L. R. Humpherys, Logan

- VERMONT**
  - d—John E. Nelson, Montpelier
  - t—C. D. Watson, Burlington
- VIRGINIA**
  - d—Dowell J. Howard, Richmond
  - s—F. B. Cale, Richmond
  - as—R. C. Bass, Richmond
  - ss—W. C. Dudley, Appomattox
  - ds—W. R. Emmous, Boykins
  - ds—J. O. Hoge, Blacksburg
  - ds—W. R. Legge, Winchester
  - ds—J. C. Green, Powhatan
  - t—H. W. Sanders, Blacksburg
  - t—E. Y. Noblin, Blacksburg
  - t—C. E. Richard, Blacksburg
  - t—C. S. McLaren, Blacksburg
  - nt—Byrl Killian, Stillwater
  - t—A. J. Miller, Ettrick
  - nt—M. A. Fields, Ettrick

- WASHINGTON**
  - d—H. G. Halstead, Olympia
  - s—Bert J. Brown, Olympia
  - as—H. M. Olsen, Olympia
  - as—E. M. Webb, Pullman
  - ts—Oscar Lorson, Pullman
- WEST VIRGINIA**
  - d—s—John M. Lowe, Charleston
  - s—H. N. Hansucker, Charleston
  - t—D. W. Parsons, Morgantown
  - t—A. D. Longhouse, Morgantown

- WISCONSIN**
  - d—C. L. Greiber, Madison
  - s—Louis M. Sasman, Madison
  - t—J. A. James, Madison
  - it—Ivan Fay, Madison
  - it—Clarence Bosaack, Madison
  - t—V. E. Nylin, Platteville
  - t—J. M. May, River Falls
- WYOMING**
  - d—Sam Hitchcock, Cheyenne
  - s—Jack Ruch, Cheyenne

—A. D. Fobbs, Alcorn  
—George H. Baldwin, Providence  
—Everett L. Austin, Providence

- SOUTH CAROLINA**
  - d—Vord Peterson, Columbia
  - as—W. C. James, Columbia
  - ds—M. N. Mahoney, Honea Path
  - ds—R. D. Anderson, Walterboro
  - ds—J. H. Yon, Loris
  - t—W. G. Randall, Clemson
  - t—B. H. Stribling, Clemson
  - t—J. B. Monroe, Clemson
  - t—T. E. Duncan, Clemson
  - t—F. E. Kirkley, Clemson
  - nt—Gabe Buckman, Orangeburg
  - nt—J. P. Burgess, Orangeburg
- SOUTH DAKOTA**
  - d—J. F. Hines, Pierre
  - s—H. E. Urton, Pierre
  - t—Stanley Sundet, Brookings

- NEBRASKA**
  - d—G. F. Liebendorfer, Lincoln
  - s—L. D. Clements, Lincoln
  - as—H. W. Dooms, Lincoln
  - t—H. E. Bradford, Lincoln
  - t—C. C. Minter, Lincoln
- NEVADA**
  - s—Lloyd Dowler, Carson City
- NEW HAMPSHIRE**
  - d—Walter M. May, Concord
  - s—t—Earl H. Little, Concord
- NEW JERSEY**
  - d—John A. McCarthy, Trenton
  - s—t—H. O. Sampson, New Brunswick
  - s—t—E. V. Bearer, New Brunswick
  - as—O. E. Kiser, New Brunswick
- NEW MEXICO**
  - ds—Frank E. Wimberly, State College
  - as—L. C. Dalton, State College
  - t—Carl G. Howard, State College
  - t—H. M. Gardner, State College
- NEW YORK**
  - d—Oakley Furney, Albany
  - s—A. K. Getman, Albany
  - s—R. J. Weaver, Albany
  - as—R. C. S. Suthill, Albany
  - as—J. W. Hatch, Buffalo
  - t—Roy A. Olney, Ithaca
  - t—E. R. Hoskins, Ithaca
  - t—W. A. Smith, Ithaca

- NORTH CAROLINA**
  - d—T. E. Browne, Raleigh
  - s—Roy H. Thomas, Raleigh
  - as—R. J. Peeler, Raleigh
  - ds—E. N. Meekins, Raleigh
  - ds—J. M. Osteen, Rockingham
  - ds—T. H. Stafford, Asheville
  - ds—T. B. Elliott, Woodland
  - t—Leon E. Cook, Raleigh
  - t—L. O. Armstrong, Raleigh
  - t—J. K. Coggin, Raleigh
  - t—F. A. Nyland
  - nt—S. B. Simmons, Greensboro
  - nt—C. E. Dean, Greensboro
  - nt—W. T. Johnson, Greensboro
- NORTH DAKOTA**
  - d—A. F. Arnason, Grand Forks
  - s—t—Ernest L. DeAlton, Fargo
  - t—Shubel D. Owen, Fargo

- OHIO**
  - d—J. R. Strobel, Columbus
  - s—Ralph A. Howard, Columbus
  - ds—W. G. Weiler, Columbus
  - ds—E. O. Bolender, Columbus
  - ds—H. G. Kenestrick, Columbus
  - t—W. F. Steward, Columbus
  - it—ds—C. E. Rhoad, Columbus
  - t—A. C. Kennedy, Columbus
  - rt—Ray Fife, Columbus
- OKLAHOMA**
  - d—s—J. B. Perky, Stillwater
  - as—Bonnie Nicholson, Stillwater
  - ds—W. R. Felton, Stillwater
  - ds—S. M. Crosnoe, Stillwater
  - ds—Byrl Killian, Stillwater
  - t—C. L. Angerer, Stillwater
  - t—Don M. Orr, Stillwater
  - nt—Chris White, Stillwater
  - nt—D. C. Jones, Langston

- OREGON**
  - d—O. I. Paulson, Salem
  - s—Ralph L. Morgan, Salem
  - as—M. C. Buchanan, Salem
  - t—H. H. Gibson, Corvallis
- PENNSYLVANIA**
  - d—Paul L. Cressman, Harrisburg
  - s—H. C. Fetterolf, Harrisburg
  - s—V. A. Martin, Harrisburg
  - t—Henry S. Brunner, State College
  - t—William F. Hall, State College
  - it—Russell B. Dickerson, State College
  - t—C. S. Anderson, State College

- Puerto Rico**
  - d—Lloyd A. LeZotte, San Juan
  - s—Nicholas Mendez, San Juan
  - as—Samuel Molinary, San Juan
  - ds—Frederick A. Rodriguez, San Juan
  - ds—Juan Acosta Henriquez, Arecibo
  - ds—Juan Robles, Cayey
  - ds—Andres Ramirez, Mayaguez
  - t—Lorenzo G. Hernandez, Mayaguez
- TENNESSEE**
  - d—G. E. Freeman, Nashville
  - as—J. W. Brimm, Nashville
  - ds—H. N. Parks, Gallatin
  - ds—L. A. Carpenter, Knoxville
  - ds—Ben Douglas, Jackson
  - t—R. E. Fitzgerald, Knoxville
  - t—J. B. Kirkland, Knoxville
  - rt—A. J. Paulus, Knoxville
  - rt—E. B. Knight, Knoxville
  - nt—W. A. Flowers, Nashville

- TEXAS**
  - d—W. E. Lowry, Austin
  - s—Robert A. Manire, Austin
  - s—R. Lano Barron, Austin
  - as—George H. Hurt, Austin
  - ds—B. C. Davis, Austin
  - ds—O. T. Ryan, Lubbock
  - ds—C. D. Parker, Kingsville
  - ds—W. E. Williams, Alpine
  - ds—L. V. Hallbrook, College Station
  - ds—J. B. Payne, Stephenville
  - ds—L. L. Samuel, Arlington
  - ds—J. A. Marshall, Nacogdoches
  - ds—Thomas R. Rhodes, Huntville
  - t—E. R. Alexander, College Station
  - t—Henry Ross, College Station
  - t—E. V. Walton, College Station
  - t—L. L. Moses, Huntsville
  - t—Ray L. Chappelle, Lubbock
  - s—S. V. Burks, Kingsville
  - sms—W. R. Sherrill, College Station
  - it—G. H. Morrison, Huntsville
  - it—J. C. Brown, Kingsville
  - nt—O. J. Thomas, Prairie View
  - nt—W. D. Thompson, Prairie View
  - nt—Paul L. Rutledge, Palestine
  - nt—Gus Jones, Caldwell
  - nt—E. E. Collins, Texarkana
  - nt—S. E. Palmer, Tyler
  - nas—W. M. Collins, Prairie View
  - nt—Oliver Sadtberry, Prairie View
- UTAH**
  - d—E. Allen Bateman, Salt Lake City
  - s—Mark Nichols, Salt Lake City
  - as—Elvin Downs, Ephraim
  - t—L. R. Humpherys, Logan

- VERMONT**
  - d—John E. Nelson, Montpelier
  - t—C. D. Watson, Burlington
- VIRGINIA**
  - d—Dowell J. Howard, Richmond
  - s—F. B. Cale, Richmond
  - as—R. C. Bass, Richmond
  - ss—W. C. Dudley, Appomattox
  - ds—W. R. Emmous, Boykins
  - ds—J. O. Hoge, Blacksburg
  - ds—W. R. Legge, Winchester
  - ds—J. C. Green, Powhatan
  - t—H. W. Sanders, Blacksburg
  - t—E. Y. Noblin, Blacksburg
  - t—C. E. Richard, Blacksburg
  - t—C. S. McLaren, Blacksburg
  - nt—Byrl Killian, Stillwater
  - t—A. J. Miller, Ettrick
  - nt—M. A. Fields, Ettrick

- WASHINGTON</**