



Former F.F.A. member and family become established in community.
(Photo J. K. Coggin)

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 Interstate Printers and Publishers, Danville, Ill.

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CONTENTS

Editorials	
Do Your Boys Have a Chance?.....	H. G. Kenestruck..... 51
Are We Teachers?..... 51
Copy Veterans Program..... 51
Planning for Teaching.....	Clayton E. Grabow..... 52
Importance of Lesson Planning in Teaching.....	William Judge..... 53
Lesson Plans versus Planned Lessons.....	Jesse A. Taft..... 54
School Does Cooperative Canning.....	C. C. Beam..... 54
Bulletin Board Displays.....	Gordon Mereness..... 55
Summary of Veterans Farm Training Study.....	R. E. Naugher..... 56
Organized Activities of Young Farmers.....	F. J. Miller..... 57
Developments in Agricultural Education.....	H. H. Gibson..... 58
Improving Farm Betterment Projects.....	Walter M. Crumbliss..... 59
Richard M. Kildee, A Nebraska Teacher of Vocational Agriculture.....	H. E. Bradford..... 60
What Enters into the Launching of a New Family into the Society of a Community.....	D. M. Clements..... 62
Recruiting Future Teachers.....	W. A. Smith..... 63
The Education of Farm Youth.....	Ray F. Pengra..... 64
Fetterolf on Assignment in Orient..... 65
Vocational Agriculture in Delaware.....	W. Lyle Mowlds..... 66
Making Use of the Results of Research.....	George P. Deyoe..... 67
Establishing a Filing System for the F.F.A. Chapter.....	E. William Crane..... 68
Organizing Thrift Banks in Local F.F.A. Chapters.....	J. J. Arceneaux..... 69
A Lesson in Simple Carpentry.....	Vernon V. Luther..... 70

Editorial Comment

Do your boys have a chance?



H. G. Kenestruck

DO THEY HAVE a better chance to become progressively established in farming because they are in vocational agriculture and because they have you as a teacher? Not necessarily. Farms are still being taken over and operated by young farmers in the due course of events without vocational agriculture ever having been taught in the community. If your boys have a better chance, it is because you as a teacher have done and will continue to do some things that many teachers of vocational agriculture "get-by" without doing.

Do you have a clearcut picture of the possibilities on each boy's farm for that boy to become progressively established in farming? If he is a freshman can you visualize clearly year by year what might be a reasonable series of developments in his farming program that will lead him into farming? If he is beyond the freshman year can you note definite accomplishments up to this time which indicate expanding possibilities for further developments of a sound farming program? By a sound farming program we mean one that gives reasonably definite promise of leading the boy into progressive establishment in farming.

Farming Programs Must Be Sound

In these days of inflation of all kinds, too many inflated farming programs are found; programs that are expanded and thinned out with an eye to a good paper showing for the State Farmer or the American Farmer degree instead of being built soundly, conservatively, and probably with less diversification than a "good" paper program seems to demand, but close to realities of normal progress through the customary parent and son relationship.

Have you convinced each of your boys by your actions that you are interested in his personal development through the steady climb up the rungs of the agricultural ladder? On-farm contacts made in an alert helpful spirit, in far greater numbers than is common, are necessary to bring this about.

Have you built up the confidence of the parents so that they not only believe that you want to help their boy but also that you are competent to do so? An excellent illustration of parent confidence in a teacher of vocational agriculture was brought out at the Ohio Annual Conference this year, when one teacher explained in detail with tangible evidence how he worked with his students and their parents in getting the boys to keep, analyze and use farm accounts. This was during the period when many teachers of vocational agriculture and some supervisors and teacher trainers had lost faith and said that farmers would not permit their boys to keep farm accounts or allow teachers to see the figures because of their fear of the tax collector. As this teacher, who is a war veteran with only a very short teaching experience, modestly explained, ways and means can be worked out even in this most difficult aspect of teaching vocational agriculture if the parents believe in the teacher.

With the opening of school you need, in order to be even reasonably successful this year, to be able to answer each of the above questions unhesitatingly in the affirmative. In one sense September is far too late to be reminded of this. The three months just past have been those that offered the greatest opportunity for making those observations, doing that thinking and developing those relationships which are essential to affirmative answers to these questions. However, if your answer cannot ring out quite as positively as you would like for it to do, waste no time in vain regrets. During the three months ahead weather and roads will probably be reasonably good. There will be enough daylight hours outside the school day for you to make up to some extent for deficiencies in your accomplishments to date.—H. G. Kenestruck, Ohio State Univ.

Are we teachers?

FOR MOST OF US this month marks a return to the classroom and to certain of the routine aspects of teaching. It is, therefore, a logical time to reflect upon our responsibilities as teachers.

In recent years much has been said and written regarding the role of the teachers of vocational agriculture and particularly the increased responsibilities which teachers have acquired because of expanding programs including the supervision of emergency activities. As we become increasingly involved in directing community undertakings our efficiency as teachers diminishes, whether it be in the classroom or on the farm. The pendulum has swung so far that there is danger of repudiating our role as teachers. Perhaps the solution to the dilemma lies in the expansion of personnel providing for supervisory time and additional teachers in departments of vocational agriculture, and in the providing of more assistance to teachers from the outside.

Be this as it may we must not lose sight of the fact that we are teachers and that we will succeed or fail to the extent that we bring about desired changes on the part of the persons whom we teach. Elsewhere in this issue there appears an excellent article pertaining to a Nebraska teacher who is typical of many instructors of vocational agriculture to whom we might assign the title of *Master Teacher*. The R. M. Kildees' have succeeded because they are fitted and trained for their tasks, because they believe in teaching as a career, and because they are meticulous in their preparations and in their presentations.

Partially because of our obligations in dealing with emergencies, but more important because we take activities involved in teaching for granted, there has been too little consideration given in our conferences and in our professional literature in recent years to problems pertaining to teaching. It is refreshing, therefore, to observe the emphasis given to articles dealing with preparations for teaching which are appearing currently in this magazine. Certainly we will do a better job of teaching if we make thorough preparations for teaching, including the development of instructional units and source materials.

Teachers of vocational agriculture have done a magnificent job in meeting the challenges placed before them in recent years. Little did they realize previously their capacity to deal with the many and the divergent problems with which they have been confronted. The writer would be the last to condemn their interest in meeting the problems which have arisen and desires to be counted among those asking for relief from the tendency to pyramid the load of the teacher. This comment is prompted by a desire to see continued recognition made of the thesis that the major function of vocational agriculture has been and should continue to be that of teaching.

May we continue to serve and be recognized as teachers of vocational agriculture.

Copy veterans education

IN RECENT MONTHS a substantial number of special instructors for the program of Institutional On-Farm Training has been added to our list of readers. In recognition of this the editors are accumulating a number of articles pertaining to the program of veterans education which will be used in subsequent issues. Certain of the contributions are being prepared on designated subjects by administrators, by state, area and local supervisors, by teacher trainers, and by special teachers. Additional contributions may be mailed to the special editors of the Farmer Classes section—J. N. Weiss, University of Illinois, Urbana, Illinois or Mark Nichols, currently The American Institute of Cooperation, 1302 18th Street, Washington, D. C., or to the editor.

We believe that the special teachers will find helpful suggestions among the articles used in different sections of the magazine.

Planning for teaching

CLAYTON E. GRABOW, Teacher, Detroit Lakes, Minnesota



Clayton E. Grabow

FOR an inexperienced teacher a lesson plan is like a guide who is with us on a fishing trip. Both tend to lead the way and boost our morale.

During my first year as a teacher of vocational agriculture, complete lesson plans were developed in terms

of job analysis and problem solving for the major enterprises in my community. My enrollment was relatively small and the farming community was limited in scope. As a result I had sufficient time to develop plans in greater detail.

Lesson Materials Needed

In organizing the new department at Detroit Lakes in July, 1943, I found it increasingly difficult to develop lesson plans much beyond the brief outline form. Developing an agricultural program of all-day classes, evening classes, and an F.F.A. chapter seemed to absorb most of my time. Now, after working with fifty to sixty-five high school boys and several groups of adult farmers each year for the past five years, I have come to one definite conclusion—viz., it is impossible to develop complete lesson plans for every class that passes in review each day.

Teaching agriculture may be likened unto coaching a basketball team. Some coaches are firm believers in a planned, set offense in which the players carry out definite assignments as they bring the ball down the floor. Other coaches advocate varied types of offense to be used as each game is played. The plan of attack is changed from game to game. It may be varied from quarter to quarter in a single game. The plans are carried in the mind of the coach, who instructs his players to cope with every situation. The successful coaches are usually to be found in this latter group.

The agriculture instructor who "lives by bread alone" can't possibly do an effective job of training our future farmers. The successful teacher, just as the successful coach, has to vary his attack from day to day. Becoming familiar with lesson plans in the early teaching experience enables one to acquire the background and fundamentals to formulate mental plans in succeeding years.

We, as teachers of agriculture, find ourselves developing teaching plans as we drive out to a boy's farm after school hours, as we are riding home from an adult evening class in the waning hours of night, or as we recollect activities of

Represented in these first articles in the series on Lesson Planning are divergent views as to meaning of lesson plans as well as somewhat different points of view toward their use. Later articles will reflect much the same degree of difference. No doubt these same differences and others exist among those of us who are the makers and users of plans for teaching. Perhaps the articles will stimulate the reader to evaluate his own concepts and practices regarding lesson plans. The Magazine will welcome further contributions on the subject.—W. A. SMITH.

the day just before we go to sleep. With such a comprehensive program as we find ourselves in, we are forced to follow such methods.

In my brief experience as a teacher I have come to learn that a flexible course of study and good key lesson materials will help a person considerably in doing a satisfactory job of teaching with a minimum of written lesson planning.

Included in this discussion are lesson materials which we have used in our high school classes. Most of these materials may be prepared sometime during the summer months. When school reopens in the fall, we have the basic materials ready to use. A plan for productive enterprise projects (Item 1), a list of the approved practices in the boy's farming program (Item 2), and an approved practice outline form (Item 3) provide the guide materials to supplement the plans which the student develops for his farming program and which he records in the Minnesota Farm Practice Record Book.

Soil testing may have greater significance for the boy if he is provided with a report sheet. The following has been used in our laboratory work with soils. It is based on the La Motte Soils Testing Kit. (Item 4)

Plans for Field Trips Needed Also

Field trips, too, have far more importance if the boy is required to observe and jot down the important phases of the trip. Whether the trip is to a dairy farm, a produce plant, or a fertilizer plot, a trip sheet provides more satisfactory results for the teacher and the students. Below is a form which is used for certain of our trips. (Item 5)

The exhibits are indicative of the materials that have been used in our department. Without a doubt other teachers have developed different types of lesson materials for use in guiding the learning farm youth.

Exhibit of Materials Used

Item I— PLAN FOR PRODUCTIVE ENTERPRISE PROJECT

This is to be a short essay plan of the project.

Below is a suggested outline which may help you in writing up the plan.

OUTLINE

1. Why have you chosen this project?
2. Have you had previous experience with a project of this type?
3. Do you have an enterprise of this type on your farm at present?
4. If you have an enterprise of this type on your farm, how would you rate it?
5. If your father is cooperating with you in carrying out this project, what will be the extent of his cooperation?
6. In what way will you protect against risks?
7. What is the present outlook for disposing of the products of your project?
8. What plan do you have for using the proceeds from your project?
9. Do you plan on continuing this project on a larger scale in the future?

PLAN

Item II—

SMALL GRAINS

(Approved practices)

- A. Choosing type and variety to grow
 1. Seed only recommended variety
 2. Select on basis of results in community
 - 3.
- B. Determining when and where to plant my grain
 1. Select productive soils
 2. Set up a rotation for farm
 3. Plant grain when ground is warm and after frost-free date in county
 - 4.
- C. Buying my seed grain
 1. Purchase certified seed
 2. Buy from reliable grower
 - 3.
- D. Testing my seed
 1. Test all seed planted for germination
 - 2.
- E. Treating my seed
 1. Treat all seed before planting with Cere-san according to recommendations
 2. Use seed treater and respirator in treating
 - 3.
- F. Planting my grain
 1. Seed according to recommended rate (i.e., Oats 2-2½ bu.)
 2. Carry out directions as set forth in seed directory
 3. List practices recommended in directory
 4. Plant on field containing as few weeds as possible
 - 5.
- G. Fertilizing my field
 1. Apply commercial fertilizer according to recommendations
 2. Apply barnyard manure that is free of weed seeds
 - 3.
- H. Roguing my field
 1. Stroll through field at intervals as grain is growing to pull out any weeds
 - 2.
- I. Harvesting my grain
 1. Cut with binder or combine at proper stage
 2. Place in good shocks if harvested with binder
 3. Sack all grain for seed purposes in clean Bemis bags
 - 4.
- J. Storing my grain
 1. Store in dry, well-ventilated, rat-proof bin
 - 2.
- K. Marketing my grain
 1. Sell as certified seed
 2. Observe market prices during season
 3. Market the off-grade grain through livestock
 4. Market surplus through cooperative elevator
 - 5.

(Continued on Page 53)

Importance of lesson planning in teaching

WILLIAM JUDGE, Teacher, Owingsville, Kentucky



William Judge

LESSON planning is essential for the most effective use of our time in teaching. We don't have time to teach every thing we would like, so we must have lesson plans in order not to leave out the most important things and to make the best use of our time. Lessons certainly need to be planned. We have found that in our department of vocational agriculture, the most valuable time we spend during the year is the two weeks we set aside when we rework or revise our course of study or lesson plans. Some time during the summer months is probably the best time for this work.

A general calendar of lessons should be set up at least a year in advance, so we will know at any month during the year how we are progressing. Without these plans, we may find at the end of the year that we have spent more time on an enterprise or some other phase of our program than was advisable.

What to Include in Plans

What to teach or what to include in our lesson plans will vary with each department of vocational agriculture. If we can't secure supervised farming in an enterprise, it shouldn't be included in our plans. We can't teach our boys swine production effectively unless they have an opportunity to get some experience in producing hogs. Many times we may have only one or two boys in our department with a certain enterprise. This wouldn't justify our spending several weeks teaching all of our students this enterprise but we could have these two or three boys work on this enterprise on individual problem days. What proportion of our boys should have supervised farm practice in an enterprise before it should be included in the group or class instruction will depend upon how important this enterprise is in the area where these boys are planning to farm. I would say that 25 per cent or more of our students should be getting experience in an enterprise before we should include it in regular instruction for all of the boys in the class.

Before including an enterprise in our plans, we consider the following questions:

1. Will 25 per cent or more of our boys be able to do actual experience in this enterprise? In some departments where the chapter owns a farm, students may receive experience in an enterprise even though they don't have this enterprise on their home farms.
2. Is this enterprise one that we think should be included in the

LESSON PLAN OUTLINE

Enterprise.....
 Subject or Unit.....
 Situation.....
 Problem No.....

Things to consider to solve problems.	References
1.	
2.	
3.	
4.	
5.	
6.	

Basic Science:

Conclusions:

farming programs of our students? Some enterprises that we now have on some of our farms should be discouraged because of lack of markets, soil adaptation, competition with other enterprises, and climatic conditions.

3. Do we have or can we secure adequate teaching material? We can't teach boys how to test soil unless we have the needed equipment.
4. Can we provide adequate supervision in this enterprise?

If we can answer yes to all of these questions, it is probably safe to say we should include this enterprise in our plans.

Even though we make the best plans we are capable of making, we still will have to make some changes throughout the year. Where possible our lesson plans should follow a seasonal sequence, so that recommended practices can be emphasized just before time to perform them on the farm.

Evaluation of Lesson Plans

One way we can evaluate our lesson plans and teaching procedures, is by the number of approved practices being carried out by our students in the enterprises taught. I heard one teacher remark recently that he thought he was doing a good job of teaching, but he couldn't get his students to use the practices being recommended.

Our lesson plans should also include ways of developing in students the attitude and ability to learn new ways of doing things after they will have left school. Students who do not have the desire constantly to improve on what they are doing will soon be left far behind in agriculture.

In order for a teacher to make good lesson plans, he should have all of the information he can secure about the agricultural practices in the community. It would be excellent to have survey data on every farm in the community. By using these data a teacher is in a better

Planning for teaching

(Continued from Page 52)

Item III— APPROVED PRACTICES IN MY FARMING PROGRAM THAT I WOULD LIKE TO KNOW MORE ABOUT

Name.....
 Date..... Agriculture.....
 Enterprise..... Practice or Job.....
 My Home Situation.....
 Reasons for Studying the Job.....

Reference:
 My Plans for Doing Practice or Job:
 What I will do.....
 Reasons for doing this way.....
 Results expected from plan.....
 Rating of way practice is carried out now: A B C D E (underline).

Item IV— SOIL TESTING REPORT

Name of owner.....
 Address..... Location of farm.....
 Name of tester.....
 Date.....

Tests Run	Findings	Normal Condition	Recommendations
I. Test for Acidity pH		7.0	
II. Test for Phosphorus Available Phosphorus per acre		100 to 200 lbs.	
III. Test for Potash Available Potash per acre		200 to 300 lbs.	
IV. Test for Nitrate Parts per million in normal mineral soil		12 Parts per million	

Other notes:

Item V—

FIELD TRIP TO POULTRY FARM

Agriculture..... Name.....
 Name of owner..... Breed.....
 Number of laying hens.....
 Size of poultry house.....
 Are there 4 square feet per bird (heavy breeds) or 3 square feet per bird (light breeds)?..... Is there one nest for every 5 birds?..... Are nests of adequate size?..... (12"x12" or 14"x14").
 Is there one foot of mash hopper space for each 5 hens?..... Is fresh, clean water kept before birds at all times?.....
 Are feeders and water containers on stands off the floor?..... Are dropping boards with wire provided beneath roosts?..... What type of litter is being used?..... Is it adequate?.....
 Adequate ventilation?..... Sufficient windows?..... (1 square foot for each 12-15 square feet floor) House located on well-drained ground?..... Balanced ration fed?..... Where are eggs marketed?..... Draw diagram of laying house showing all equipment, windows, and doors.

position to make his plans and to decide what he would like to accomplish. His lesson plans should serve as a guide for accomplishing these goals.

Lesson plans, to be of the greatest value, should be used every day. They should be kept in a convenient place where they can be referred to before and during each class session. Plans filed away and not used are of little value to anyone. They must be used consistently and revised frequently to be of the greatest value. Lesson plans are the *working tools of our profession*. We can do a much better job if we use these tools.

Lesson plans versus planned lessons

JESSE A. TAFT, Teacher Education, Amherst, Massachusetts

LESSON PLANS are not very important but let me hasten to explain that *Planned Lessons* are of tremendous importance. Too many teachers do little preliminary planning and one finds them often on the spur of the moment wasting precious class time searching for appropriate references. In fact, too many lessons are planned only in the classroom while they are taught. Teachers often complain that it takes too much of their time to plan lessons. It is true that conscientious teachers find it necessary to spend at least thirty minutes per day in preparing a lesson. Any job rightly done takes time.

Supervisors are often confronted with this question from apprentice teachers: Specifically, What Should My Lesson Plan Include? The answer is lesson planning will include only what you will actually need in order to give the students the experience you want them to get. Items that fit one teacher do not fit another. Therefore, supervisors seldom attempt to set up a specific check list of these items. In the first place, there is no such universal list. If a sample lesson plan were given, some unimaginative teacher would seize upon it and follow it slavishly. There simply is no single recipe for lesson planning which could be used by all teachers comparable to following a recipe for making corn bread.

As our schools open with increased enrollments, we are all aware of the necessity of well-organized plans for each course we are to conduct during the new school year. Even the most careless teacher realizes at the end of the school year that without lesson plans his teaching is inferior and unsatisfactory.

Usually our new teachers go on the job early enough to organize and systematically plan the year's work. When it has been determined exactly what enterprises will be taught during the year, the teacher will plan lessons on the job-analysis basis. Each job will then become the lesson which may take as many as several days to cover. Thus, in vocational agriculture, we seldom have what is traditionally called daily lesson plans—often referred to as an outmoded procedure.

Organization of Plans

One efficient way to organize teaching plans is to have a folder on-file for each major job that will be taught in each enterprise. Particularly in the New England States, it is difficult to locate a satisfactory textbook which will entirely fit the needs of a teacher of vocational agriculture. The majority of textbooks are not entirely adapted to New England conditions and teachers cannot rely upon one textbook alone. Therefore, the work of a conscientious teacher under these conditions is not so simple. An alert teacher must rely upon the use of many references in order to give complete coverage to the unit being studied. Often, during the year, excellent articles and references are discovered and, unless a teacher has

a ready file of lesson plans set up on a job basis, the material is never available when needed. This calls for the development of short-time teaching plans. A number of our Massachusetts teachers are using this system very effectively. After this plan has been once set up, it is an easy matter to plan the common lessons to be taught the following year. Oftentimes, a laboratory exercise in a practicum has been prepared which is satisfactory for use in succeeding classes in the same subject. Outlines of observation trips annually taken, will likewise need little revision.

Problem or Project Method

With rare exceptions, the Problem Method or Project Method of teaching is desirable for use in all subjects. When the lesson is planned to permit the Project Method of approach, the teacher will be in a position to create a natural sequence in the learning process. In "Cutting the pattern" of the lesson, the teacher will:

- (1) Attempt to plan something desired by the learner
- (2) Encounter a difficulty
- (3) Recognize the problem
- (4) Analyze the problem to secure a basis of attack
- (5) Set up a program designed to solve the problem
- (6) Try a method; if it does not succeed, try other methods
- (7) Write a "plan" for future experiences

Steps 1 to 3 are preliminary. Individual study, demonstrations and laboratory work are involved in steps 4 to 6. The last step is that employed in writing the plan on the project planning sheet. Supervised study will follow the same routine with that which adults use. It will be seen that *telling* by the teacher and traditional *recitation* methods have little use here.

The one great value in the problem method of teaching or study is that it is natural and capitalizes the motive or interest factor as the power to carry on the work. This motive is much stronger if the *problem* presents itself while the pupil is at work on a supervised farming program to which he has committed himself.

The problem method utilizes or seeks a problem for the purpose previously explained. The project method merely goes one step farther and sets up desirable enterprises, knowing that *problems* will arise. Otherwise, the two methods are identical.

When a job has been properly taught, the confidence of the student is also developed to the end that he will be able to do the job without relying upon the teacher's help. This is the result of an effective job of teaching. Under these situations, it is an easy matter for the teacher to determine with accuracy the degree with which the new knowledge functions in operation. Invariably, supervisors find that the

teacher of vocational agriculture who is carrying the greatest teaching load has the best planned lessons. Of course, the more familiar the teacher is with the job to be taught, the less time it will be required to prepare a simple plan. Elaborate lesson plans are not necessary. Although, you may have taught a job several times, it is a mistake not to think the process through subsequent to each presentation. If you have systematically filed your lesson plans for the previous year by enterprises and jobs, it will take little time to review and set the stage for the teaching of classes to follow.

Planned Lessons Assure Effective Teaching

With well-planned lessons, pupils and teacher will be thinking in the same terms and confusion will be eliminated. Not only a better lesson will be taught, but the strain and nervous energy of the teacher will be greatly reduced. Any amount of stereotyped lesson plans may be secured but a brief, simple plan of a lesson developed by the teacher is far more valuable. For this reason, it is evident that "lesson plans" are not very important but *planned lessons* by the individual teacher are of tremendous importance for effective teaching.

School does cooperative canning

C. C. BEAM, Teacher,
Herndon, Virginia

Begun as a food-conservation measure, the canning of surplus products continues to be a major activity at the Herndon, Virginia high school. Recently a carload of apples allotted to the school by the Federal Government as a surplus product was processed in our cannery. In four days, 3220 gallons of apple sauce was produced which will be used in the cafeterias in schools of the county.

This project was carried to completion with the assistance of Mr. Adelaide Adamson, teacher of home economics and by students from the two vocational departments. Patrons from the fourteen rural schools in the county worked as helpers in the canning and received for their school the canned product in proportion to the hours of labor furnished.

Last summer about 35,000 quarts of home grown vegetables and fruits were canned by residents of the county for home and school consumption. Trained operators take care of the mechanical phases of the canning and each person who brings produce to be canned does his own work. An increased amount of canning is being done this season.

Aside from the food-conservation value, it is felt that the canning program provides students of our school with valuable training in a cooperative undertaking and provides skill in the operation of mechanical equipment. Modern methods of food preservation will aid greatly those living in rural areas and small towns.

Bulletin board displays

GORDON MERENESS, Teacher, Delhi, New York

IN Delaware Academy and Central School the agriculture department and the industrial arts department are responsible for maintaining a hallway bulletin board used for the purpose of educational displays. The responsibility for the display is alternated between the two departments about every four weeks. The bulletin board is located between the two departments in a hallway leading to the cafeteria where it is in full view of students who eat in the cafeteria and of the visiting public as they attend dinners or agricultural meetings.

The problem that arises for one who is responsible for maintaining such a bulletin board is, "How can I best use the space to do the most good for my department?" The accompanying pictures and the following description will attempt to show how I tried to answer the question. Perhaps from this description others will find suggestions to help them in similar situations.

Hallway Bulletin Board

In January of this past year the display was centered around farm jobs that needed to be done during the winter months. It was to serve as a reminder to the farmer of jobs that were current and to the non-farmer and prospective farmer of the kinds of jobs that a successful farmer would be engaging in at that time of year in order to make use of labor productively in a dairy region. The jobs were illustrated in simple picture form to show operations connected with particular tasks. A reading reference was suggested in cases where appropriate answers to problems connected with the job were readily available. Thus, in a glance at the bulletin board a visual picture, a few words of explanation and a reference to important information were obtained. This particular display received many favorable comments and was, in my estimation, worth the few minutes required in its preparation. See Display 1.

The jobs selected and illustrated were: clipping the flanks of the cow; controlling rats (as a part of the 'save grain' campaign); ordering chicks; filing in-

come tax returns; killing, curing and canning pork; ordering trees to plant on waste land; 'getting out' and treating fence posts; feeding cows according to records of profitable production; cutting fuel wood and timber for home use and sale; improving the farm woodlot by selective cutting; servicing and repairing farm tools and machinery; selecting and ordering seed for spring planting; and applying lime. This is not a complete list of farm jobs for the winter months but by emphasizing these it was felt that others would suggest themselves to the farmer.

Last March I selected the job of Selecting and Caring for Baby Chicks in making up the display, Display 2. Here I tried to bring out, first, the need for selecting a quality chick of known breeding, vigor, and freedom from pullorum disease; second, the proven breeds common and standard in the state from which to select; third, that information is available on reliable breeders, care of chicks and poultry farming; and fourth, the pleasure and satisfaction that comes in observing the development of the young poultry stock.

The Classroom Bulletin Board

A bulletin board in the department classroom is maintained to help impress upon the pupils some of the more desirable practices to be performed in connection with a particular job being studied. This board is changed and prepared as the job units change in the classes. For example, in Display 3, the left side of the board was given over to a unit on "Rearing a Dairy Calf. Practices of desirable rearing were illustrated with the idea that a picture of a practice being performed is worth a lot of words and serves as added stimulus. The center portion of the board was used to feature Mastitis and Bang's Abortion in connection with the unit on Diseases of Dairy Cattle. On the right side of the board the illustrations were devoted to Care of the Laying Flock. The blue ribbon was included in this section to remind the boys of their successful participation in the F.F.A. chapter display contest, in a



The author uses the classroom bulletin board for motivating his students pertaining to units studied currently.

neighboring fair, in which they featured Culling a Laying Flock. Other pictures in this section emphasize healthy birds and New Castle disease. The center and bottom portions of this particular bulletin board display were used for items of general interest.

Pictures used on the bulletin boards usually are mounted on the back of file cards. This provides a white border which sets the picture off from the dull color of the bulletin board, and permits the use of thumb tacks without damaging the illustration. Pictures can be saved for later use.

The bulletin board display is an excellent means for assisting in getting better practices into operation or performed on time. I have found that a neat, attractive, easily understood, timely and appealing bulletin board brings many favorable comments for my department.

* * *

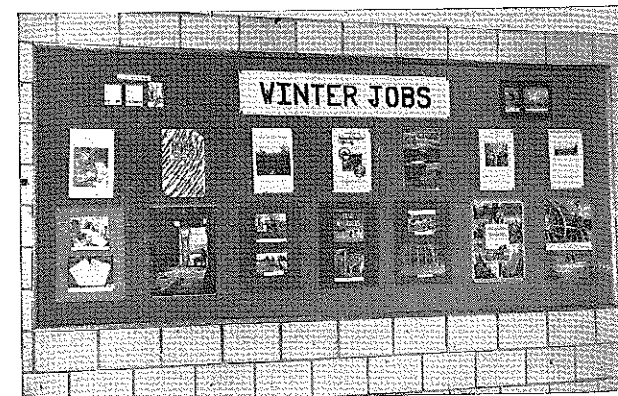
The F.F.A. chapter at Parker, South Dakota, has contributed \$100 to the purchase of a press camera for the school.

* * *

The Young Farmers Association at Clovis, California, has donated \$100 to a local Future Farmer loan fund. Similar donations have been provided for the fund by the Farm Bureau and the Grange in the area.

* * *

The Leesburg, Florida, F.F.A. chapter is cooperating with the Junior Chamber of Commerce in establishing a \$200,000 forestry project. The chapter has planted 110 acres this year and plans are made to plant 100 acres of slash pine a year for the next 12 years.



The hallway bulletin board at Delhi, New York, is used to acquaint high school students and public with program of vocational agriculture. This display was presented during the winter months and attracted considerable attention.



The displays are rotated and kept on the seasonal basis. The pictures and charts shown herewith were presented in March at the time students in agriculture were studying the selection and care of baby chicks.

Farmer Classes

J. N. WEISS

MARK NICHOLS

Summary of veterans farm training study

R. E. NAUGHER, U. S. Office of Education



R. E. Naugher

AS a result of a discussion of the Institutional On-Farm Training Program at the A.V.A. Convention held in Los Angeles, California, in December 1947, State supervisors of agricultural education who were in attendance agreed to collect information

from at least five average departments of vocational agriculture where farm training programs for veterans were in operation. The forms were to be collected in the state offices and forwarded to the U. S. Office of Education for summarization.

The primary purposes for making this study of veterans enrolled for institutional on-farm training were to determine:

1. Number of veterans with previous training in vocational agriculture
2. Number of veterans in various age groupings, as an indication of the approximate number eligible for future young farmer classes
3. Highest grade completed in school as an aid in planning future training programs in vocational agriculture
4. Present farming and marriage status as an aid in determining approximate number eligible for future young farmer classes
5. Number of veterans interested in further training in vocational agriculture after their institutional on-farm training has ended
6. Kinds of agricultural enterprises and activities to be included in future training programs for young and adult farmers in vocational agriculture
7. Frequency of class meetings for organized group instruction for young and adult farmers
8. Frequency of supervisory visits to the home farm
9. Portion of group meetings that should be held on farms
10. Interest in a young farmer organization on a local, state, and national basis.

Replicas were received from 5,363 veterans enrolled for institutional on-farm training. This is approximately two per cent of the number enrolled for this type of instruction. Nine States from

the Southern Region, 8 from the Pacific Region, 5 from the Central Region, and 3 from the North Atlantic Region participated in the study. Consequently, the results should be fairly representative on a national basis.

No replies to a few of the questions were given by some of the veterans. Since the name of the veteran did not appear on the form, the failure to record an answer to a question does not necessarily mean a negative vote. However, unless otherwise indicated, the failure to reply was counted as a negative vote.

Previous Training, Marital and Farming Status, and Interest in Further Training

Only 1,790, or approximately one-third of the veterans taking part in the study, had received instruction in vocational agriculture in day-school classes.

The average age of veterans enrolled in the institutional on-farm training program and participating in the study is 28.3 years. Seventy percent are 30 years of age or younger and, according to arbitrary age limits established in most States, are eligible to be enrolled in young farmer classes. The fact that 73 per cent of these veterans are married and the 66 per cent are either owners, renters, partners, or managers of farms indicates that a big majority of this group are interested in farming as a life occupation. Most of the 17 per cent listed as wage hands and share croppers as well as many of those who gave no indication of farming status will remain in farming as a life work. Approximately 43 per cent completed 8 grades or less of schooling. Consequently, most of this number did not have an opportunity to receive any training in vocational agriculture for in states where 8 grades are taught, vocational agriculture is not offered below the ninth grade. Only 211, or approximately 4 per cent of the number surveyed, completed more than 12 grades in school. These facts indicate the need for providing training in agriculture for young farmers who have not had an opportunity to go to high school and also the need for organizing young farmer classes to reach young men as they graduate or otherwise leave high school. This point is further verified by the fact that 4,911 or approximately 92 per cent stated that they wanted further training in agriculture after their period of entitlement for training with the Veterans Administration has ended. This desire for further training was evidenced by 1,886 or approximately 93 per cent of those surveyed from the

Activities to Include in a Training Program

The men surveyed indicated they wished to receive training in a wide range of activities. In the order of frequency mentioned, livestock, crops, farm mechanics, soils, general farming, poultry and dairying were listed as the enterprises to include in a farmer training program. In addition to the above enterprises, 3,982 or approximately 74 per cent wanted training in cooperative activities, such as buying and selling farm products, establishing rural electric lines, soil conservation and irrigation projects, and dairy herd improvement associations; 3,614 or 70 per cent wanted further training in farm family living problems dealing with selecting or building and establishing a home, furnishing and landscaping the home, producing and conserving the family food requirements, health problems, and many other activities dealing with improving living conditions on the farm. Fifty-three per cent wanted further training in civic or rural leadership activities, 56 per cent in group recreational activities, and 51 per cent in social activities. The percentage of those desiring training in these activities was about the same for the four regions of the country. These facts indicate that programs for young farmer and adult farmer classes should be broadened to include many of the above activities as they are needed to aid individuals to become successfully established on the farm and in the community.

To include the activities listed above in regular young farmer or adult farmer classes will require more than the minimum number of class meetings as listed in most State Plans covering this work. The study indicates that 2,319 or approximately 43 per cent would like classes to meet each two weeks or oftener throughout the year. This number of meetings would provide time for a number of activities not now generally included in young and adult farmer classes. In addition to the above group, 2,340 or about 43 per cent wanted to meet once per month throughout the year, 5 per cent wanted to meet less than once per month, and 9 per cent gave no response.

Field Trips and Supervision

The pattern of operation of out-of-school classes in agriculture for young farmer and adult farmer classes seems to be well indicated as shown in the study. Approximately 85 per cent stated that classes should be conducted both on farms and in the classroom. As an indication of the value of instruction given on field trips, 2,671, or approximately one-half, wanted 40 per cent or more of the classes to be held on farms where improved farming practices have been made or, preferably, are being put into operation while the group is there.

(Continued on Page 70)

Organized activities of young farmers

F. J. MILLER, Teacher, Oshkosh, Wisconsin*

The period after graduation is often referred to as the forgotten age among farm boys. Each year thousands of young men graduate from our high schools with no further attempt made by most of our schools to assist them to further their education or training for a livelihood. One of the most common questions asked teachers of vocational agriculture out in the field is, what has become of the boys who have graduated from your school and department each year? Are they farmers? What are they doing? How completely is this training in vocational agriculture meeting the objectives of establishing boys in farming? Studies made by men in similar fields of study have definitely indicated that not all boys who have been trained in vocational agriculture in our high schools have become established in farming. Reliable figures indicate that boys who have completed the training in vocational agriculture in high schools are likely to become established in a farming career.

In a national survey recently completed it was found that of the 46,000 odd boys contacted 24,000, or approximately 52 per cent were engaged in farming. The same survey showed that approximately 6 per cent of the students entered occupations related to farming, and that 5 per cent were enrolled in colleges of agriculture. Thus, it seems that between 60 and 65 per cent of the boys who took agriculture, have made direct use of it. In a similar study in the state of California, it was found that of 313 boys from five high schools, 11 per cent were engaged in related agriculture; 14 per cent were working for wages on the farm, and 31 per cent were actually farming on their own. Here again we see that nearly 60 per cent of the boys in this study were engaged in farming or related work. In a similar study in Illinois, it was found that the number of boys becoming established in farming is much lower where the boys were not enrolled in agriculture, and that it required a much longer period of time for the non-agriculture boys, and those who had no high school training at all, to become established in farming.

Need for Young Men in Farming

There is definitely a need for more young men to become established in farming each year. However, not all of the boys who are born and reared on the farm should stay there. The birth rate among the farm population is 40 to 50 per cent higher than that needed to maintain the present farm population. Statistics indicate that the average operative life of farmers is from 32 to 40 years; therefore, in order to maintain an active army of over 6,000,000 farmers annually, approximately 165,000 new farmers are needed

*Presented at conference North Central Region, Chicago, Illinois, April, 1948.

each year in the United States. This number is far larger than the actual number of young men who become established in farming each year.

It is believed that many factors such as the attitude and co-operation of the parents, the size of the home farm, the size of the family, the agricultural status of the parents, the distance from an industrial center, and the amount of capital the boy has to work with, play a vital part in the occupation he finally enters. The years immediately following graduation, is when the young man needs a great deal of guidance. I believed that it is generally conceded that the teacher of vocational agriculture, who has established himself in the community for several years, is the person most liable to counsel and guide these young men after the time of graduation and before they are about to become established as farmer or in non-farmer occupations. Our problem, as agricultural leaders, is to help these young men bridge the gap between the completion of school, or about 18 years of age, and the pier of security and success. This period, I referred to earlier as the forgotten age.

7,000 in Young Farmer Classes in Wisconsin

Young farmer classes, a comparatively recent development in the field of agriculture, are set up to give instruction to out-of-school young men on the farm, or interested in farming, whose ages range from 14 to 30 years. They are set up to offer systemized instruction between the areas of adolescence and adulthood. Young farmer classes have several objectives, chief of which is the establishment and proficiency in farming. The need and acceptance of this program has brought about a rapid growth of this school in many states. Just last year over 7,000 young farmers in Wisconsin were enrolled in more than 200 classes which were taught by 177 agricultural instructors.

In many communities this group have organized themselves into a Young Farmer Association. Some of them have a definite program of work, others are entirely social in nature. In Oshkosh, Wisconsin, in the year 1935, the members of the young farmers classes, organized themselves into a club known as the Oshkosh Young Men's Agriculture Association (YMAA). Oshkosh is located in Winnebago County where 12,200 people live on farms; 61 per cent of the farm operators are full owners; 83 per cent of the gross farm income is from livestock and livestock products, of which 53 per cent is from milk. Because of such a healthy agricultural background, the Oshkosh Club has thrived and grown during the past thirteen years. New members are added each year and some are siphoned off because of marriage, age, or moving from the community.

The success of such an organization depends upon its need in the community and the nature of its activities. A well selected constitution and by-laws are not enough to make and maintain a successful organization. It must have a program of work and some definite objectives upon which it operates. Some that might be mentioned are:

1. To develop leadership
2. To develop confidence in himself
3. To encourage him to stay on the farm
4. To decrease farm tenancy
5. To help him become established in farming
6. To help him earn some money at the present time
7. To provide for education as well as recreation
8. To develop an appreciation for agriculture as a means of livelihood social recreation, and the love of the out-of-doors.

Activities of the Oshkosh Young Farmers Association

Earlier, I mentioned that it was necessary to have an organized all-year-round program of work. This program should be drawn up by the members themselves. Some of the highlight activities of the year in the Oshkosh Young Men's Agriculture Association are:

1. Promote a herd health program
2. Cooperative purchase of farm needs
3. Promote a quality milk program in the community
4. Develop a sow testing program
5. Encourage social activities in the club
6. Sponsor an annual banquet for members, old members and friends
7. Sponsor and promote the 75 bushel corn club
8. Promote the Oshkosh Oats Club
9. Home beautification development
10. A farm safety program
11. Pasture fertilization demonstration
12. Dairy herd improvement work
13. Encourage exhibits at the county and state fairs
14. Sponsor the annual Corn Festival in November
15. Cooperate in sponsoring the farm institute

Success of the program depends upon the participation of its members. Most of us as agriculture teachers are very apt to try to carry the entire load, responsibility, and credit for work done among our young farmer groups. We might be criticized for being pushers instead of leaders. Let's give the young men a chance to show their ability; kindle their interests, and by all means visit them often at their place of business, namely the farm. They need and appreciate our help in the form of suggestions, development of plans, and the confidence we can help them develop in themselves. Don't forget, these boys have a bridge to gap; let's help them by making them a definite part of the community, as well as respectable leaders of rural young America, tomorrow.

Farming Programs

C. L. ANGERER

Developments in agricultural education

III. Supervised farming

H. H. GIBSON, Teacher Education, Oregon State College, Corvallis



H. H. Gibson

FOR a long time, improvement projects have been considered phases of a complete program in supervised farming. However, I discovered that the improvement project in certain of the north-central and midwestern states, notably Minnesota, Wisconsin, Illinois and Michigan, means much more than it does in states of the Pacific region and some other states I have visited in the East and South. For instance, improvement projects in dairying, swine production, and soil conservation, are being developed in a number of states on a group or class basis in contrast to the individual improvement project that is frequently found. There the possibilities for education in such projects seem to be fully as great as in individual production or ownership projects which we have always considered basic in our farming program.

Improvement Projects as Teaching Devices

These projects in the states mentioned are more than cow testing, sow testing or soil testing projects. Very definite objectives and goals in terms of production and other desirable outcomes have been set up. Around these objectives are developed, from year to year and in a long-time program, a great deal of instructional material, farm problems and practices. The boys, as I saw them at work in schools and classes, seemed to be just as interested in the improvement type of a project as in their individual production or ownership projects when production objectives and goals are set up in terms of pounds of milk or butterfat per cow, weight of pigs per litter, etc. A great many problems and practices are naturally studied in relationship of achieving these objectives. Materials and many records are charted in graphical and other illustrative forms. These are accumulated from year to year and used in revising and setting up new objectives and higher goals.

The improvement project, more than any other, seems to bring all farming groups together in a common undertaking—the high school boys, the young farmers and the adults. It is the kind of a project that is frequently de-

his boys individually on bringing up their records and studying the results of their sow testing projects. In other words, this swine improvement project had become a community affair embracing every phase of the business life of the community, including the packing houses.

The city of Austin and the chamber of commerce consider this one of their biggest concerns and are glad to give it their support because of the productive wealth that it brings to the community. As a result of this undertaking over a period of years, there is now held at Austin one of the largest yearly livestock auctions in the middle west. Breeding stock from this center is purchased and shipped to many states. The Swine Production Institute, which is held just before the adult evening classes start, has become an annual affair. Specialists of national reputation are brought to these meetings. This whole movement, then, started in a small way with an adult evening class which attempted to find out what was wrong with the local swine industry and the reasons for the small litters of pigs through the use of an advisory council. This improvement project program now embraces the interests of all groups of farmers and townspeople as well. A large town and community banquet to support this program is held each year at the time of the institute.

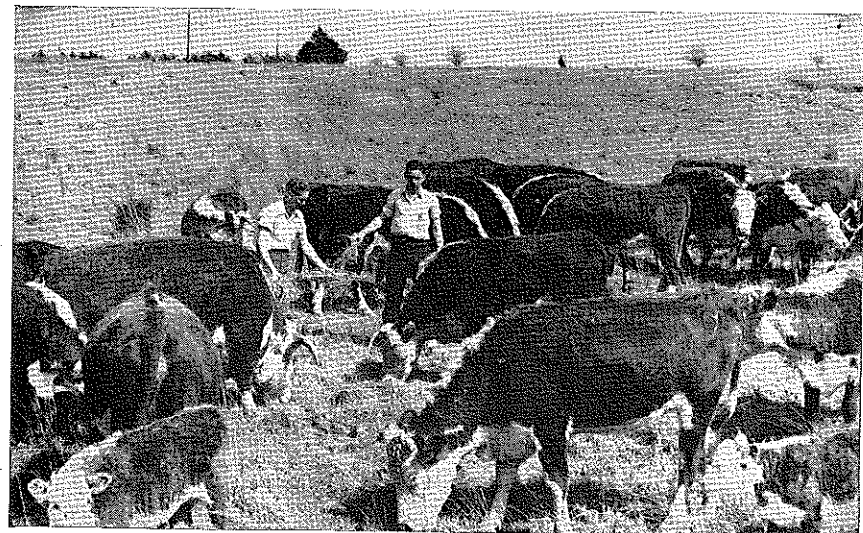
When we have large community and permanent interests of this sort, it is not difficult to secure individual and class interests among day school boys, young farmers and adults alike. The key to the whole improvement project seems to be first of all to discover needed changes and improvements out of which large objectives and goals are set up. Everything else becomes ways and means to achieve desired ends. Permanent interests are developed which carry over from year to year in a long-time program. It is not difficult to get incentive, study and work on the part of boys and farmers in a program that is of community-wide interest. Community interest goes a long way to

This is the third of a series of articles by Professor H. H. Gibson based on the observations which he made on a tour through several states last summer. Previous articles used in the July and August issues dealt with the distribution and use of the teacher's time, and with teacher education.

veloped in community program making. Boys keep records of milk production and butterfat in their home herds, analyze and summarize results, revise their production goals higher from year to year and present the results of their studies and recommendations to adult farmers. Where the DHIA's do not exist, these are often the forerunner of such organizations.

Swine Program at Austin, Minnesota

For example, at Austin, Minnesota, there is perhaps the biggest swine improvement project on a community basis to be found in the United States. Here I tried to catch up with Pete Holland, who I learned was out on field work, and who for many years has been giving the major portion of his time to this project with the adult farmers. When I could not locate him, I found the day school instructor, Mr. Radke, back at the high school working with



Two Future Farmers, J. L. and Dale Youngker, of Perkins, Oklahoma, are shown feeding their commercial herd of 25 Hereford cattle. The two boys also have good projects in Duroc swine breeding and have won numerous show awards with their fat barrows. Both boys have attained the degree of Junior Master Farmer—highest award given by the state association—and both plan to make farming their life's occupation. Courtesy of C. L. Angerer.

lift individual interest to a high level of endeavor.

Whether the conditions are as favorable for carrying on projects of the improvement type in all states as they are in certain north-central and midwestern states, I am not at all sure, but in discussing the nature of improvement projects and the procedures used in developing them with certain state supervisors and teacher trainers in other states, where such projects are not now important, these persons immediately began to think in terms of how improvement projects might be developed in certain enterprises or types of farming in their communities. The states and communities which are conducting improvement projects of the kind described have a responsibility to make their contributions and procedures known to all workers in vocational agriculture.

Farm Partnerships

There seems to be an increase everywhere in the possibility of farm partnerships as means of getting farm boys and young farmers started and established in farming. Particularly at a time of inflated land values, the parent and son partnership plan seems to be the most possible route to entrance and establishment in farming. However, it seems that we are in need of a better understanding of the proper approach and procedures in developing farm partnerships, particularly parent and son partnerships. There is a lot of psychology, of course, involved in this effort. Sufficient attention and training has not been given our teachers to this problem either by the teacher training staffs or by staff members in the departments of farm management. Men like Hill at Michigan and Warren of Cornell are giving special consideration to this problem. The state supervisors, teacher trainers and farm management staff need to cooperate to determine effective procedures in developing partnership arrangements and agreements.

Results at Newton, Illinois

In Newton, Illinois I saw a most interesting and effective development of the farm partnership idea. The major progress in this movement apparently is quite recent. The instructor, Mr. Walker, and the teachers of veterans, in checking over their young farmer and veterans' list, reported to me that approximately twenty-five per cent of the young farmers in their groups had either worked out parent and son partnerships or were in the process of doing so. There is a big human story here that should be written up and publicized for the use of our workers in vocational agriculture.

In brief, Mr. Walker began by discussing in open class meetings the need and value of having business-like partnership arrangements developed between parent and son. He reported that this brought very little response or discussion in the open class meeting, but apparently it stirred up a lot of thinking, because young farmers immediately began to ask for personal interviews on this problem. The young farmer wives, who were holding meet-

Improving farm betterment projects

WALTER M. CRUMBLISS, Teacher, Ravenna, Nebraska

IN DISCUSSING the improvement of the *Farm Betterment* program, let us first get clearly in mind what is meant by a farm betterment project. On page six of the Nebraska Project Manual we find the following statement.

"A Farm Betterment project involves a series of jobs designed to improve the appearance and the real estate value of the farm or to increase the efficiency of the farm business as a whole, or to contribute to the comfort or convenience of the farm family."

There seems to have been a lot written about the supervised farming program in general but little in regard to the betterment program specifically. Before discussing a few of the ways to improve this program, I would like to mention some of the difficulties encountered in developing such a program.

The first of these is *Tenancy*. It is true that many of our farm problems are directly related to the fact that too small a percent of the farmers own the land they farm. Many of the boys in our high school classes come from homes where all farming operations are carried out on a rented basis. Too often renters are not inclined to want to do many of the things listed as farm betterment projects because it merely means improving the farm or farmstead of the owner. Consequently many boys are limited in their selection of

ings at the same time in the Newton center, began hearing about these discussions and they also asked Mr. Walker to discuss the problem in their meetings. As a result, he reported that it was not long until both the husbands and wives were coming together for interviews on this problem of farm partnerships. And then the parents began to ask for interviews with him. So that, he reports, it is now a frequent occurrence to have both the parents and the son and wife seated around the conference table working out partnership arrangements. This takes a great deal of time but he reports it is one of the most interesting and valuable experiences he has had during his many years of teaching at the Newton center.

Here is one place, it seems, where all of us need to understand more of the psychology and of the procedures involved in working out parent and son partnerships. Attention must be given to this problem in a cooperative way by agricultural instructors and staff members in the departments of agricultural education, state supervision and farm management. It would seem that we ought to have enough experience and material by this time, based on individual cases to be able to formulate fairly sound steps and procedures in dealing with partnership arrangements.

betterment projects even though they may be badly needed on that farm. However, many of the jobs, if completed, would benefit the renter as well as the landlord.

In the second place there are those boys who could be classed as part town and part country who are limited in their selection of projects of any kind because they lack facilities to carry out a complete betterment program. Another difficulty we often meet is the failure of the student, and often the teacher too, in planning thoroughly the betterment job to be done. These are just a few of the problems we meet from time to time. There are many more.

Procedures Used By Nebraska Teachers

In trying to arrive at some definite practices which would improve the betterment program, I contacted several teachers of vocational agriculture in our state to find out what had been helpful to them in working out their betterment programs.

In summarizing the suggestions received, I found that many teachers use the contest idea in promoting their betterment program. Some use one specific project for the entire group. It might be *Home Beautification* or *Farmstead Improvement* and at the close of the contest an award of F.F.A. apparel, tools or some other suitable prize is given the boy who has accomplished the most. Other chapters carry out a betterment project as a chapter activity in which each boy is competing against the rest of the group or it may be that some suitable recognition is given a boy after he has completed the project without any thought of a material award.

The second suggestion given was to use a display of pictures on the bulletin board to stimulate interest in various betterment projects. In regard to a shop improvement program, these men would post several pictures of home farm shops and call attention to the good points of each shop. One might use the "Before and After" idea to an advantage by posting pictures of some boy's shop before anything was done to improve it and then a picture of the shop after rearrangement.

A third suggestion was the use of field trips in pointing out the need of betterment projects. This procedure might be effective in showing the need for conservation practices on a farm, or the possibilities of establishing a good windbreak. Many other needs might be shown. The trips could be preceded by the showing of movies, slides, or film strips to point out a need for some particular improvement and then follow up with a field trip to show what could or had been done.

Another suggestion offered was the use of class demonstrations in showing how some betterment project could be

(Continued on Page 70)

Richard M. Kildee, a Nebraska teacher of vocational agriculture

H. E. BRADFORD, Teacher Education, University of Nebraska, Lincoln



H. E. Bradford

The primary purpose of this article is neither to unduly praise a certain teacher nor to set him up as a master teacher, superior in every way to all other Nebraska teachers. The idea is rather to set forth factual evidence of those good teaching ideals and practices that usually produce the best results in the development of boys and the improvement of farm living conditions. Many teachers who read this article will approve the methods described because they have used them and found them productive of good results; others, primarily new teachers, may find some inspiration and stimulation to grow more rapidly into successful, seasoned teachers.

Made Teaching a Career

First, a word about the subject of the article will be in order. Richard M. Kildee, now teacher of agriculture and supervisor of teacher trainees, has just completed his first year of service in the high school at Fremont, a city of 15,000 people. Twenty years ago he graduated from Iowa State College and began his teaching at Eagle, Nebraska in a small consolidated school. After seven years at Eagle, he moved to West Point to develop a new department in a rich agricultural community, and there he stayed for another seven-year period. His next move was to Norfolk to teach in a high school of more than 500 students. After five interesting and successful years at Norfolk, he accepted an invitation to move to Fremont and begin work in the dual purpose position which he now holds.

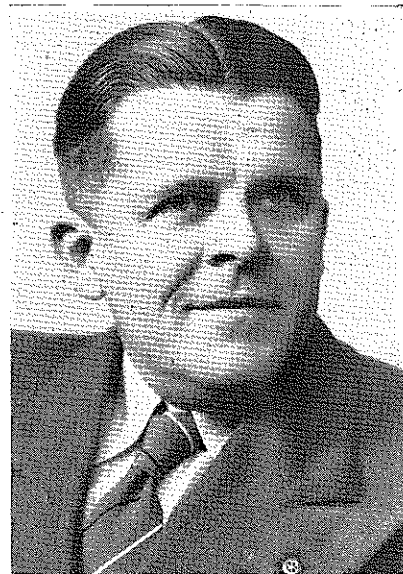
Mr. Kildee is a modest man and not at all inclined to talk about himself or the excellence of his department. In fact, the writer had to make first-hand investigations and apply a little pressure to get the facts and evidence for this article.

Sponsors Complete Program

So much for the introduction and historical sketch. Now suppose we analyze this man Kildee to understand the reasons for his success as a teacher of vocational agriculture. In the first place, a good teacher must have the ability to organize and carry successfully what is known as a complete and well-balanced program, not once in a

while but every year. Mr. Kildee, as a beginning teacher, saw the value of the complete program idea; and his record shows a consistent division of effort directed toward high school classroom teaching, the development of supervised farming programs, the encouragement of the F.F.A., the promotion of a strong farm stop program, and the organization of well-planned classes for young farmers and adult farmers.

His high school classes have always had large enrollments of farm boys, not only from the high school district but also from a rather wide rural patronage area. The farm homes of these high school boys are well known to Kildee because his car is often in the driveway while he talks to the boy



R. M. Kildee

and the family about problems common to all of them. Kildee says that the confidence of the farm family comes from close acquaintance with the agricultural teacher.

Results of this policy of personal acquaintance are seen in the supervised farming programs of the high school students. Dad and mother understand the program so son gets backing and stimulation from home. No doubt that is one reason why Kildee's boys, with a minimum of teacher pressure, carry farming programs that increase in size and variety with each succeeding year until graduation time.

On the wall of the classroom is an outline of the F.F.A. program for the year. Look it over, and you will find a varied list of activities, some

recreational and others inspirational and educational. This program was made by the boys and the teacher shows his hand only by suggestions and stimulation.

The shop in the Fremont High School reveals evidence of much activity and good planning. The tool room is neat and well arranged. Tools are in good condition and each tool has its place. A visitor is impressed at once by the use being made of modern equipment in teaching boys how to construct and repair articles for their home farms. More about the shop a little later.

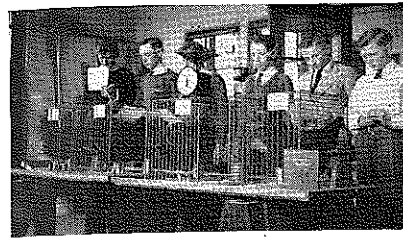
But a complete program includes not only the education of high school boys but also the further education and training of older, out-of-school youth and adult farmers. These outside-of-high school programs Kildee has carried regularly year after year, in the four communities he has served. Since 1935, he has had classes for young farmers and adult farmers every winter, and his enrollment totals have been consistently high. During the war years, his shop was busy several evenings every week with farm machinery repair classes. Now he teaches three veterans who live on Dodge county farms near Fremont. This is an outline of Mr. Kildee's complete program. He never seems to hurry, but something is on the way or being finished each succeeding week.

Plans Teaching Periods Carefully

Now for a look at the parts of Kildee's program to see whether his plans and methods of attack seem to be better than average. Since classroom teaching of high school boys is one important measure of proficiency, we may begin our inquiry at that point.

The observer will discover that Mr. Kildee's plans for every teaching period are always carefully made, and his daily objectives are clearly defined. More than that, he seems to understand the art of motivating the discussion period so that students are eager to learn and to contribute their ideas. The visitor becomes conscious at once that Kildee's teaching job has a real vocational slant and is usually pointed at the understanding of some agricultural problem of the local farming area.

Interest is nearly always at a high point in Mr. Kildee's class periods, and one may ask how he does it. The answer is that when an instructor makes careful plans and motivates his instruction, sustained interest is no accident. An illustration may help to make this point clear.



Laboratory exercise—selecting laying hens.

The writer recently paid a visit to Mr. Kildee's department and found some small animal cages on a table in the front of the classroom. "What do you have here—a zoo?" "No," came the reply, "Just a few interesting little animals to stimulate interest." The animals were Syrian Golden Hamsters, a tiny rodent now replacing the guinea pig in many medical research projects. But since the Hamster families come fast and often, they afford opportunities for observing the results of different matings. So when improvements in the herd or flock are being discussed, the little Hamsters are the center of attraction. High school students can easily understand principles of genetics when they see the results of line breeding, inbreeding or crossing in the size and markings of the Hamsters. This little experiment in the sustaining of interest is temporary, of course, and something else will take its place in the near future.

During the same visit, the writer found another exhibit that definitely contributed to the development of sustained interest in teaching periods. Out in the shop stood an electrically heated brooder in which twenty-five New Hampshire Reds were being raised on wire. The cages were kept scrupulously clean and there was no contamination from droppings. Every feeding was made according to plan, the feed was weighed and gains were noted and calculated in terms of cost per bird. The good results were easily seen in the rapid gains in weight, the lack of disease, and the lower cost per pound of increase. How to make chickens gain rapidly is easily understood by the boys because they have seen the live birds and watched them grow from hatching to market time.

Farming Programs Lead to Establishment

Now for a look at the supervised farming programs of Kildee's students. The records show an average of more than one project per boy in the freshman year. But the interesting feature is the steady increase in number and size of projects as each boy grows in experience and maturity. Supervised farming programs seemed to be willingly accepted as a part of the learning process.

One illustration may serve to show how some of Kildee's boys have developed and transferred from high school students to real farmers on their way to ownership. Glenn Reeson, in 1936, started as a freshman in the West Point high school; and for his initial project, he chose one purebred Angus heifer. Of course, he carried a supplementary feed producing project

and also a farmstead improvement project. But his eyes were on that Angus heifer, and he was looking ahead to the herd of purebreds he might have in five or ten years.

And the boy's dream came true. Glenn graduated from high school and now, just 12 years from his freshman days, he is a prosperous farmer living near West Point. Just look at his herd of cattle, all his own. There are 38 animals, every one an Angus purebred. Glenn has 30 females and one herd sire. If you like figures, you might inquire about the value of a purebred Angus female, and then multiply by 30. Now, add the price of a good bull, and you will say that Glenn has done very well indeed. R. M. Kildee, Glenn's teacher, must feel a sense of satisfaction in thinking that he had something to do with Glenn's success. Such memories form a part of the life-reward of every conscientious teacher.

Training in Farm Mechanics Emphasized

Since farm mechanics training is considered very important in Nebraska, we may step from Mr. Kildee's classroom through an open door into the shop where boys in shop clothing are working on various mechanical projects.



Community service—the F.F.A. constructs concrete feeder troughs as a cooperative activity.

Two boys are just finishing a wagon box which tomorrow will be in service on a farm; one little fellow is laying out his lumber for a feed bunk to be used at home, and a tall lad with glasses is studying the blueprint of a self-feeder for chickens. Over on the north side of the shop a student is bending and shaping white hot iron fresh from the forge while others wearing goggles are working at the arc and acetylene welders.

Everywhere in the shop there seems to be activity with each boy aware of his own project for the day. There is plenty of noise, but no confusion because everything is planned in advance, and the teacher, Mr. Kildee, seems to be concerned only with keeping the wheels turning and helping boys who have met unexpected problems. Where do all these jobs come from? The boys say that most of their construction and repair jobs originate in needs of their home farms. Sometimes a custom job is undertaken for a neighboring farmer on the basis of cost plus a small percentage which goes into the treasury of the F.F.A.

If Mr. Kildee were asked to evaluate the activities described in the foregoing

two paragraphs, he would disclaim superiority at once by saying that similar programs could be found in a considerable number of the Nebraska departments of vocational agriculture. This is an example of the modesty of a man who achieves excellence, but is quick to disclaim superiority.

But the observer noticed a brand new combine harvester in the shop and asked why it was there. Well, said Kildee, you know horses are disappearing from Nebraska farms and are being replaced by tractor-drawn machinery of all kinds. And these machines cost lots of money, so farmers and their sons must be able to assemble them and give them the kind of care that will result in longer life and better service. He went on to say that by arrangement with local dealers, he was able to get new machines for the boys to assemble and to study. That, he said, is one of the most interesting projects in the shop. With the aid of the manufacturer's handbook, the boys learn to recognize every part of the machine and to know its function. That means fewer days lost from the field, fewer repairs and adjustments and more dollars in the pockets of the farmer. The observer agreed and wondered how many teachers had thought of such a plan to teach farm machinery in a high school.

Training and Service Provided Through F.F.A.

And now let us take a look at Kildee's F.F.A. chapter just to see what objectives he has in mind. We use the F.F.A., says Mr. Kildee, to train farm boys to be confident, efficient, and cooperative members of farmers' organizations. The boys make the plans and run the show. To clinch the point, he pointed to the program of work on the bulletin board in the front of the classroom. Continuing, he said, we try to train high school boys to become leaders of men who can think for themselves and work cooperatively with other men. Yes, we have our share of State Farmers; and once in a while an American Farmer, but our main effort is spent on training the entire group. The few outstanding boys with unusual opportunities need just a little encouragement, and they do the rest all by themselves.

But the observer was not satisfied, so he inquired into the number and character of cooperative enterprises carried on by the F.F.A. under Kildee's leadership. There he found evidence that the members of a high school

(Continued on Page 66)



Field trip—determining germination in variety demonstration plot.

What enters into the launching of a new family into the society of a community

D. M. CLEMENTS, Assistant Chief Agricultural Education Service, U. S. Office of Education



D. M. Clements

WHEN a young man and young woman decide that they will cast their fate and fortune together "for better or for worse" then life becomes real for them. They realize they must assume their own responsibilities and that they will become greater and

different as the years roll by. These responsibilities extend beyond themselves. They have a part to play in the general welfare of human society. The success they make of their own family living will largely determine the contribution they will be able to make to the community in which they live.

Their *personal behavior* will have much to do with their success in the society in which they live. Society knew them as a young man and a young woman, society watched them from the time they were children, now society will watch and judge them as a responsible couple asking for admittance for the purpose of making their contribution to the social, educational, religious and economic well-being of all the people in their community. Their personal behavior in their home will be reflected in their personal behavior to society. They must keep alive and secure those things that drew them together; their interests, their judgments, their attraction for each other, their ability to merge their romance into an enduring love will influence their place in society. Will each of them always be able to say, "When I grow too old to dream, I'll have you to remember"?

The journey over "Life's Road" begins when they become man and wife. A good foundation for life's way, together with a constant gaining of knowledge will go far in making the road a smooth highway and will do much toward overcoming the hazards that might lead to disaster.

Building a Home

One of their early dreams and one of their first desires is to build for themselves a home. This requires planning, study, observation, financing and reconciliation to disappointments. Do they have any idea about the needs and costs of materials? Do they know now what their needs for the future may be? Have they given thought to the conveniences they should have? Have they given thought to the best they can buy in terms of their ability to buy? Are they willing to sacrifice now in order to have what they want for the future? Have they worked out a budget and system of financing that is sound? Have they established a good credit rating from the standpoint of

Cover page

Valentine Everhart and his family of Welcome, North Carolina, are representative of the large number of new families who are entering into the society of rural communities.

Valentine graduated from high school in 1941 and holds the degrees of State and American Farmer. He is now living in a comfortable house which he built and paid for and which is located on the home farm. The young family are part owners in that they have complete possession of a tract of land aside from the farming they do in partnership with Mr. Everhart, senior.

character and collateral? Have they given careful study to the best location in the community? Have they planned the house in keeping with its location and site? Have they worked out in detail the plans for the home when it is complete, showing the house, the interior, the lot with its landscape plan of walk, shrubs and flowers? Do they know soils, fertilizers, grasses, shrubs, flowers, water tables and drainage?

This couple now begins to recognize, that in addition to their joint responsibility, each has his and her distinct responsibility—the man, the bread winner in its largest aspects and the woman the homemaker in its broadest conception.

Responsibilities of Husband

We might spend a while with the man of this family. What does he do to support his present and future family? How did it happen that he is pursuing his vocation? Is he in love with his work? Did chance start him along this route? Did he choose to do this? Did he prepare to make himself proficient in what he is doing? Does his vocation have a future? Is he working for himself or for someone else? Does he show interest, aptitude and ability to improve himself? Does he know where he is going or is he in a blind alley? Everything he does in his own work or business is done for the welfare of his own family and in the interest of the society in which he lives. If he is successful financially, he and his wife will be able to bring to reality some of the plans they have made for the years to come. Does his business make such demands on his time and attention that he has a tendency to neglect his home and family as well as his civic responsibility? Does he have forethought enough to build up a reserve for the plans for the future as well as for the troubles that he may face in the years ahead? He may be able now to maintain his family in the manner expected

of one of his station in life, but does he have forethought to lay by in store for his family in case of his death, so that they may continue to maintain the same standard of living should the source of income be lost? Has he made it a policy to keep his wife informed of the nature and status of his business in order that she might plan and gauge her program of expenditures accordingly? Does he make available to her an amount that will make it possible for her to maintain her home and maintain her place in society without any embarrassment? Does this man feel that his only obligation is to his trade, occupation or business? Has he been taught that every good citizen should have some civic responsibility? Does he not know that only through the concerted action of the members of his community is it possible to develop a society in which most of the people are happy and prosperous? He should be active with others in making possible recreational facilities and providing entertainment for the people. He should know that people are better people when educational opportunities are available for all who wish them and it is his obligation to be active in bringing these to and for the people. He should know active membership in civic groups bring better business and more trade to the community in which he lives. It is his place along with the members of his family to be active in the religious affairs of his choice.

A part of his time belongs to his home. Not only personally to his family but for the purpose of doing the repairs and maintenance jobs of the home but also to maintain the flowers, lawns and shrubs in such a state of growth that he will have a beautiful home. These things require a varied knowledge, training and skill. If he is not prepared to meet these obligations it is his responsibility to secure training in order that he may do so.

Obligations of Wife

Let us talk about the wife. She too has her obligations to her home and to society. Does she have the training and ability to tastefully choose the furniture and the furnishings for her home? Can you discern the touch of her hand in the arrangement of the rooms and the conveniences that will lighten the burdens of housekeeping? Has her training been such that she is capable of preparing nutritious, well balanced meals? Has she the knowledge and skill that will make it possible for her to make the things that will add to the attractiveness of her home and at the same time make the family budget go much farther? Has her training been such that she has the ability to buy the food and clothing the family will need? Does she know cuts of meat as well as fabrics and other materials? Has she been taught to preserve, can, cure and otherwise conserve the food that should be laid by in store for the dormant season of

the year? She doubtless hopes for children in her family. Has her training been such that she is capable of providing the care of children at their various stages of development? Is she qualified to meet the simple emergencies that are sure to come to any member of the family? Does she have the knowledge required for safety precautions in order that she is able to guard the safety of her family? From time to time friends and visitors will come into her home. Is she a good hostess? Does she know how to make them feel at ease and be comfortable? Does she know how to entertain her husband's friends and business associates so that she will be an asset to him in his business?

Rearing of Children

Every man and his wife look forward to the time when a new interest—a joint interest will come into their lives. This is the advent of children to the family. This gives them a new outlook on life. This is the one tie that will bind them as nothing else. It gives them an opportunity of improving, with the child, the good things that come to them and steering him away from the pitfalls that caused them trouble and heartaches. They realize that a new joint responsibility has come to them, that of parenthood. This too requires study and training. This new member of the family brings new plans and new obligations. They need to know how to make him grow strong physically, how to make a well developed and alert mind and to build within his soul a character that is beyond reproach. For a strong body there will be needed the right kinds and amounts of food and exercise. The choice of entertainment, associates, books, schools and teachers will influence the development of his mind and character.

The parents soon realize that they must be prepared to cope with the dark days that lie ahead in the life of the child. There will be illness, accidents and disobedience. When these happen the parents should use sound judgment, steady nerves and special skills. "Train a child up in the way he should go and when he is old he will not depart from it." The important thing is for the parents to know the fundamentals that are essential to a good life. If society puts the good citizens stamp of approval on the father and the mother there should be no fear of child delinquency. There is in the life of every child a time when his worship for his parents is greater than all other loves he may have. This is the time to implant into him the principles of good living and good citizenship. He may waver in his period of adolescence but he will weather the storm in the end, thus saving grief and heartaches in the years to come.

Preparing the child for its life work is one of the most fundamental obligations of the parents. It makes no difference whether the child is a son or a daughter, the child must be trained to support itself through a vocation that is in tune with its interests and aptitudes. It will take much study and training to qualify this father and mother to assist the child in the right

Recruiting future teachers

W. A. SMITH, Teacher Education, Cornell University, Ithaca, New York

Very few persons are in better position to assist in maintaining an adequate supply of candidates for teacher preparation than the teachers now employed. This may be especially true in the case of teachers in vocational agriculture. They know the characteristic features of the work to be performed and they are in position to know the pupils who make up the most likely source of teacher supply—the boys enrolled in vocational agriculture—better than do other persons. The combination of knowing the job to be done and the characteristics of the person who is a potential candidate for such job is essential to effective guidance.

They must realize that competition for their child is one generation in advance. This is only the economic side of the child's training. These parents should inform themselves of the sources of information that will assist them in the proper guidance of the child into all avenues that will contribute to its economic security, its health and happiness and its opportunity to make its proper contribution to the welfare of the community.

Sooner or later this son or daughter will reach the mile post in its life where the father and mother began. It will go out into life on its own as did the father and mother. Will the parents be able to say, "our son is better qualified than we to take his place in society"?

Life's cycle does not end with the launching of children into the world on their own. Middle and old age have their happy compensations if men and women will face the facts that life brings those periods and are prepared for and reconciled to them. There will be beautiful years for this man and wife after their children are established on their own. There is now an opportunity for recreation through travel and otherwise. There is also time for making a real contribution to the community for schools, civic clubs, churches and other organizations. The years that have passed if used as they should have been will contribute to the fitting of this couple for their contribution to society in their middle years.

Their final years can be made their most wonderful years if they have made preparation for this time in their life. They have made a place for themselves among their neighbors. They have laid by in store for the years when they can no longer sell their labor and ability for money. They have planned well for their children, they have no fears for them or their welfare. Each has the satisfaction of knowing when the Grim Reaper calls one or the other, the one who is left is well cared for to the end. Therefore, in the twilight periods of their lives they can live together in contentment and recall with satisfaction the lives they have lived and their contributions to the welfare of their neighbors.

It appears now that it will take a few years to catch up with the demand for qualified teachers. More than that, there has never been an oversupply of good teachers in any field. Therefore, there should be no hesitation in recruiting for the profession at all times those high school pupils who show most promise of becoming successful teachers and finding satisfaction in the work.

What should you look for in the boy who may find satisfaction in teaching and become a good teacher? You know the duties of the teacher of vocational agriculture and the demands made upon his time and energy. These call for physical stamina, a willingness to work and a capacity for work that is above average. Likewise, you know that the work in which you are employed requires a degree of academic ability that is at least average or better. You would hardly expect the poorer students in your classes to become desirable teachers unless the reasons for their lack of scholastic achievement were excusable on the basis of factors other than ability.

Farm Experience Essential

One of the factors that tends to stand out in the background of the successful teacher is desirable farm experience. A few teachers in agriculture have become successful in spite of the lack of experience in farming but they will be the first to agree that such lack is a handicap and must be made up in ways which are not easy to find and more difficult to carry out. Therefore, you should be alert to the quality of the farm experience as well as the amount in considering those of your pupils who might be desirable prospects as future teachers. The boy should have a highly favorable attitude toward farming and farm life. In fact, it can be assumed that a very natural competition exists between the choice of teaching as an occupation and that of becoming a farmer. Certainly the work of a teacher in agriculture is no escape from the occupation of farming and the boy who looks toward teaching in such light is not likely to succeed.

Some of the other characteristics to look for among your pupils who might be both happy and successful in teaching are—ability to get along well with other persons and leadership in the activities of the agriculture department, the school and the community.

Sometime ago I ran across a verse which, so far as I know is anonymous, but which emphasizes the desirability of exercising care in the selection of those persons who become teachers. You may not agree with it entirely but perhaps you will concede enough truth in it to take seriously the opportunity and the obligation which is yours in recruiting future teachers of vocational agriculture.

"No printed page nor spoken plea
May teach young hearts what men
should be.

Not all the books on all the shelves,
But what the teachers are themselves."

The education of farm youth

RAY F. PENGRA, South Dakota State College, Brookings

FARM CHILDREN are entitled to a better education than they have been receiving. To accomplish this our educational program needs to be revised so as to eliminate the extreme variations in educational training provided different groups of society.

Farm families have more children than can be employed on the farms. As more efficient farm machinery is invented and adopted the tendency will be to reduce the labor required to do the farm work, increase the size of the farming units and so increase the numbers of farm youths that will be looking for other employment. Under present conditions, however, many of the workers from the farms are not well trained for industrial employment.

Census figures showing the number of children under five years of age per thousand of the population living in cities and on farms will give us a good measure of the relative numbers of children within each group to be educated.

Table 1. The Number of Children Under Five Years of Age Per Thousand of the Total Population in Each Group for the United States Urban and Rural Populations, 1940

Urban	67.3
Farm	99.7

Source: The U. S. Census for 1940

Figures for urban population include those living in towns or cities having 2500 or more residents. Farm population figures include only those living on farms.

In 1940 on the basis of population numbers, (see table 1) there were nearly one hundred children under five years of age on the farms as compared to every sixty-seven children under five in the cities. At the same time the population of the cities was increasing (see table 2). The increase was coming from the farms where there were more workers than were able to find employment in farm production.

There is little variation in the numbers of children in the age groups below twenty years. Table 2 shows the relative changes in the numbers of the population of the United States urban and farm dwellers from the upper school ages through the 30-34 age group.

Table 2. Percent that the Numbers of the Population in the Older Age Groups are of the Numbers in the 15-19 Age Group for the United States Urban and Rural Populations, 1940 (15-19 age group=100)

	Age Group in Years			
	15-19	20-24	25-29	30-34
Urban	100.0	104.0	103.6	96.8
Farm	100.0	74.9	61.7	54.3

Source: The U. S. Census reports for 1940

Starting with the 20-24 age group there was a definite movement from the farms to the cities. In the cities there were one hundred four people between the ages of 20-24 for each one hundred in the 15-19 age group. At the same time the farms lost over one-fourth of their numbers between the same classifications. It should be noted that this movement to the cities started after these youths had completed at least the major part of their education.

If these farm children remained within the communities where they were educated after their education was complete there would be justice in the assumption that the farm community should pay for their education. The trouble is that they leave the farm com-

Table 3. Percent of the Total Population in Each Group 5-24 Years of Age for the United States Urban and Farm Populations by Grade in School Completed in 1940

	Grade completed						Percent
	6th gr.	7th gr.	8th gr.	1st HS	2nd HS	3rd HS	
Urban	5.9	6.3	9.8	8.2	8.0	6.6	15.0
Farm	7.8	8.1	11.2	5.7	4.8	3.7	6.9

Source: The U. S. Census reports for 1940

munity and make their contribution in production within the urban communities that did not assist in providing their training. When farm areas with relatively high birth rates are the ones with fewer opportunities for youth, educational costs are an excessive burden on the taxpayers of the farm community.

People between the ages of 30-34 have, as a group, accumulated property subject to taxation. For each one hundred in the cities between the ages of 15-19 to attend school there were 96.8 between 30-34 to support education.

Table 4. The Percentage of 15-Year-Olds for the United States Urban and Farm Populations Attending School that have Completed the First Year of High School and Those Not Attending School in 1940.

	Attending school. Completed first year of high school		Not Attending school	
	Percent		Percent	
Urban	36.6		6.6	
Farm	20.4		22.6	

Source: The U. S. Census reports for 1940

At the same time within the farm communities for each one hundred between the ages of 15-19 to attend school there were only 54.3 between the ages of 30-34 years of age to support education (see table 2). This would indicate that each taxpayer on the farms, between these ages, had to educate nearly twice as many children as the city dweller.

The percentage of the population 5-24 years of age in each group that have completed various grades in school shows the extreme difference in the amount of schooling received by the children in each group.

The percentages of farm children in the grades below high school are higher than for city children (table 3). This is because there was a large number of children per thousand of the farm population. During the first year of high school and above many farm children do

not have suitable schools available or are kept out for the work they can do to help on the farm. The percentages of those having completed each grade are lower for all grades above the first year of high school for farm children than for those living in the cities. Fifteen of every hundred of the urban population 5-24 years of age had finished high school but only 6.9 of every hundred of farm children were high school graduates in 1940. Less than half as large a percentage of the farm children between 5 and 24 years of age were high school graduates as

was the case with urban children.

An analysis of the relative attendance of 15-year-olds within each group will give a good picture of the contrast between urban and farm children's attendance in school.

Here is further evidence of the limited amount of education received by the farm children. In 1940 there was nearly twice as large a percentage of the urban population 15 years of age in high school as there was of the farm population. At the same time more than

three times as large a percentage of farm children 15 years of age were out of school as there was of the city population.

As long as such extreme contrasts of school attendance exist within the various groups of society there is urgent need for a drastic reshaping of the educational program.

A comparison of property investment and operation costs per pupil for farm and city schools for the state of South Dakota will help to explain the variation in training opportunities between the two groups.

Operating costs per pupil in the com-

Some very interesting observations are presented in a recent bulletin published by the Iowa State College. They point out that the most logical approach to the subject of the education of farm youth is to use equipment in small towns and set up school districts to correspond to trade areas.

School equipment is frequently available in the small towns or can be provided with little additional cost to accommodate the added numbers. The problem of equalizing the tax for support of the schools is the most important problem to solve in making such an arrangement.

Table 5. Value of School Property and Operating Costs Per Pupil for South Dakota Schools by Type of School, 1943-1944 School Year.

	Common	Independent	Consolidated	Average all schools
Property value per pupil.....	\$207.82	\$386.07	\$391.23	\$322.72
Operating costs per pupil.....	\$137.56	\$ 94.80	\$117.39	\$112.06

Source: The 27th Biennial Report of the South Dakota Department of Public Instruction.

mon schools are much higher than for the other types of schools (see table 5). This is, at least, partly because the common schools are too small to operate efficiently. Equipment in the common schools is very limited with few if any teaching aids. The consolidated schools have nearly twice as large an investment per pupil as the common schools and as a result are able to provide a much better program, including some vocational work. Vocational training of any kind "requires" specially trained teachers. Necessary equipment and qualified teachers are not available for the farm youths attending a one room school and as a result the schooling they receive includes no vocational training such as is taught in consolidated and independent schools.

Consolidated rural schools can provide vocational training that will be of value in securing industrial employment and make it possible for a larger percentage of farm students to complete their high school education.

The four consolidated rural schools of Lake County South Dakota are offering vocational work. Enrollment is increasing and 90 percent of the eighth grade graduates are entering high school. They offer courses in industrial arts, electricity and mechanics, typing, shorthand, journalism, and bookkeeping. The courses in industrial arts and mechanics emphasize care of tools and equipment that is of value in industrial employment as well as in farm work. Commercial students have secured positions in neighboring towns and a graduate of one of the Lake County consolidated rural schools is working for a radio station in Minneapolis. Others have continued commercial studies in business colleges and then secured secretarial positions. Consolidated rural schools would be able to provide adequate training but many of the rural communities are not financially able to support them.

Fetterolf on assignment in Orient



H. C. Fetterolf

A third of a century of continuous service was interrupted recently when H. C. Fetterolf, chief of the agriculture education division of the Pennsylvania State Department of Public Instruction left for Korea and Japan to study vocational agriculture for the War

Department. He is now located in Seoul, Korea as a "visiting expert" appraising the program for teaching vocational agriculture.

Mr. Fetterolf will remain in the Orient on his present assignment until the end of October. To make this trip, he broke a record of 35 years of continuous work in vocational agriculture, of which 33 years and 2 months have been in state work. He served as director of the first rural community vocational school at Elders Ridge, Indiana County, before the passage of the Smith Hughes Act. He was named to direct the state program when it was organized on the federally aided basis and has continued to head the work in agricultural education since that time.

For 17 years Mr. Fetterolf was a member of the Pennsylvania State Farm Show Commission, primarily to develop the youth programs. He has served 3 years on the National Future Farmers of America supervisory council, and is Pennsylvania's F.F.A. adviser. At present he is also vice-president of the American Vocational Association, representing agriculture on the AVA Board.

A graduate of the Pennsylvania State College (class of 1925) where he also received his master's degree (in 1927), Mr. Fetterolf has maintained an active interest in agriculture besides the educational aspects, through the operation of a 160-acre farm in Columbia County.

His trek to the Orient was made at the request of the Allied Military Government for Japan and Korea.

During the period beginning October 6 and ending December 1, a total of 17 two-day recreational leadership clinics were held in Tennessee for F.F.A. and F.H.A. leaders.

Five one-day district meetings for F.F.A. chapter officers, advisers and chairmen of program of work committees were held in North Dakota last November.

should not be sacrificed in providing such aid. Population movements might well be considered and the relative numbers to support the schools within each group taken into consideration in making the allotments as well as the number of children to educate.

"Iowa's Vanishing Farm Youth and Their Schools"—Bulletin P-81.

W. LYLE MOWLDS, State Supervisor, Wilmington



W. Lyle Mowlds

TONIGHT in a few minutes I would like to tell you a few of the highlights in our program of vocational agriculture since its birth in 1918. First, we might inquire "Where Are We Now?"

In vocational agriculture each department has a

follow-up card for all boys who have ever enrolled in the work. This card we try to keep up-to-date, but some boys move from the community and state and so a few are lost. The rest we do know about, except for the 4.5 per cent who are deceased.

Since 1918 almost 3000 boys have taken some instruction in vocational agriculture. Our records were summarized in 1940 and we found 48.3 per cent were farming, 12.0 per cent in related work, 35 per cent were in non-related work, and 4.5 per cent were deceased.

We are now summarizing these records again and due primarily to a large industrial plant in Seaford and many boys remaining in the Army, it looks as though that figure of 48.3 in farming may go down to around 42 per cent. Speaking of the Army, we had 1152 of our former farm boys in the services with 35 passing on to the great beyond.

All-day Program

The program of vocational agriculture is closely knit with the Future Farmers of America for white boys and the New Farmers of America for Negro boys. These two national organizations of which we have state associations and local chapters have done much to increase interest in the program as well as give training in rural leadership. Of the 149 boys that have been elevated to the "State Farmer Degree" in the last 18 years, 82 per cent are now in farming or related work. This goes to prove that their selection (by the boys) has been very good.

These boys, with the aid of some purebred swine growers in Delaware and Pennsylvania and the Sears Roebuck Foundation, initiated a state project of improving swine production in Delaware. Forty young pigs were purchased and given to the F.F.A. members with the understanding that they would give to some other selected boy his pick of one female from the first litter. Later two boars were purchased and the program has grown. This last year the Association formed the "Delaware Livestock Association" and took in as members some adults and several members of the packing industry. A show and sale was held last September

*Brief reports were made by the supervisors of each service at the State meeting of the Delaware Vocational Association, held recently at Wilmington. This article represents the report by the supervisor of vocational agriculture.

and a neat profit was made by all participating. This year we have already purchased a new boar.

In these projects that the boys carry in connection with their school work I would like you to know what they had last year.

Three hundred sixty-one boys carried 460 projects including 777 acres and 35,306 head of poultry and livestock. To do the job they used 24,987 self hours and 11,185 for others. This netted them a total of \$52,716.93 or an average of \$146.00 each.

Veterans Training

The third thing I wish to make a few statements about is our On-Farm Training for veterans of the last war.

To date we have approved 151 farm laboratories which will be worked in connection with the 200 hour classroom instruction each veteran must take. On these 151 farms are approximately 158 veterans. Of these veterans 90 are farming for themselves and 68 are working for others.

Many of the regular instructors and the special instructors have told me they have found that most all of these veterans are energetic and desirous of improving their farming skills, and would continue their classroom subjects if subsistence were to be withdrawn.

To folks in the larger states, I realize that this must sound like a small program but to us in Delaware it is very real and while there are only twenty-one departments of vocational agriculture in the entire state, one must also remember that the entire population of our state is approximately 260,000 and one-half of those live in the City of Wilmington where there is no program of vocational agriculture. We know that we are not reaching all the boys we should but I feel certain that as each year has gone by, we have reached a larger proportion.

Richard M. Kildee, teacher of vocational agriculture

(Continued from Page 61)

F.F.A. can learn by cooperative effort and can take back to their home farms good agricultural practices that increase farming efficiency and bring higher incomes to farm managers.

To illustrate, Kildee's F.F.A. at Norfolk purchased a supply of Tama and Cedar oats for seed, and in small lots these new varieties were tried out on a number of farms in Madison county. The boys who bought the seed grew certified seed and agreed to sell part of their first year's crop to other F.F.A. members. Through that cooperative F.F.A. project, two improved varieties of oats were introduced and are now being used by many Madison county farmers.

Other cooperative projects are numerous in the Fremont F.F.A. program of activities. Well balanced rations for cattle, hogs, and poultry are studied in the classroom and the constituents of

various feed mixtures are carefully determined. Then the F.F.A. purchases the grains and the minerals, mixes quantities of feed and sells the mixtures to F.F.A. members and their dads. The results are good in many ways. First, and most important, the boys learn what ingredients should go into every feed mixture, and why they are valuable. They use these feeds at home and observe the growth and development of well-fed animals and birds. This is a good example of learning by doing.

Kildee says the main objective of all his F.F.A. cooperative enterprises is education for the boys and not the small profits that go into the F.F.A. treasury. Of course, care is taken to limit the sales to families of F.F.A. members and thus avoid competition with local feed dealers. If the idea spreads to neighbors across the road, that is just the normal spread of education and not the result of a commercial enterprise carried on through the high school.

Many more illustrations of teaching activities could be given, but perhaps this is enough for one article. Mr. Kildee can point with pride to some of his students who have become successful farmers with annual incomes several times the salary of their teacher. He also remembers the boys who did good work in college and became professional men in some field of agriculture. His records show that of his graduates come are veterinarians, while others are producing and selling certified seed. A few are raising purebred livestock and some are working for manufacturers of farm implements.

Former Students of Instructor are now Teaching

And don't forget the boys who some years ago were students in Kildee's classes and now are Nebraska teachers of vocational agriculture. At the state conference last June, James Wall, teacher of agriculture at Waverly, was initiated as a new member of the Ten Year Club. Jim said he got his inspiration as a boy in the Eagle High School under Kildee's teaching.

Now, after twenty years of teaching vocational agriculture, Richard M. Kildee may consult his books and his memory and have a feeling of great satisfaction over the results of his teaching efforts. Like all sincere teachers, he will feel that his largest rewards from past and future efforts will be his memory of the high school boys he has helped to become successful men in many lines of work. And these boys will, as men, look back to Kildee as the source of many of their life ideals and much of their initial success.

Crop chapter projects conducted at Corvallis, Oregon, last summer grossed over \$1,800. The money enabled the F. F. A. chapter to pay off all of its machinery obligations.

* * * *

The F.F.A. chapter at Dixon, California, has bought a feed grinder and is currently processing barley, corn, peas, and beans for various mixes to be sold to chapter members at cost.

Studies and Investigations

E. B. KNIGHT

Making use of the results of research

GEORGE P. DEYOE, Teacher Education, University of Illinois, Urbana*



G. P. Deyoe

THE problem of how to channel research into use is one which should concern all of us in agricultural education. It should be obvious that research is not an end in itself. Research is valuable primarily to the extent that the results are diffused to the consumer level. The potential consumers in this case are supervisors, teacher trainers, teachers, interested laymen, and perhaps others who may have occasion to utilize the results of research in our field. Unless extended use is made of the results of research, the time and energy required have little justification.

Outcomes Not Fully Realized

The challenge to us is that of bringing about a wider use of the results of research than is now the case. We can well be proud of many of the research projects in our field, but can we be equally proud of the extent to which these studies have influenced us in improving our program and interpreting our program to the public?

The following suggestions should help us to make better use of the results of research in our field. These represent methods which have been used to some extent and which seem to merit further use in our field.

1. *Select problems for research which are important and timely.* If problems selected for research meet this criterion, the results are most likely to be utilized when the study is completed. Teachers, supervisors, and teacher trainers should aid in determining problems which merit investigation. State and regional committees on research are in some cases assisting in listing problems which should be given priority. If we select problems carefully, our research efforts are most likely to pay off in worth-while ways.
2. *Providing popularized presentations and interpretations for each research study completed.* Sometimes, our reports of completed research have been prepared in a style to impress other research specialists, and as a result are read primarily by them. Recently, investigations

*Presented at North Central Regional Conference, Agricultural Education, April 14, 1948.

have been completed which reveal some of the factors which affect readability, and these should be utilized in preparing reports of research studies.** These factors should be taken into account in writing the initial presentation of each completed research study. In addition, popularized articles and releases should be prepared for each study completed.

3. *Give increased attention to the implications and possible uses of research findings.* The investigator himself is in a favorable position to indicate implications and possible uses of the findings of a research study, and he should include such a section in his report. Writers of professional materials in our field should give increased attention to research studies completed, and they should incorporate findings and implications in appropriate places in their writings. Supervisors and teacher trainers should be familiar with research findings and "follow through" with their applications to local situations.
4. *Give increased attention in conference programs, research conferences, and workshops to completed research studies.* These activities should include reports on completed research and discussions focused on interpretations, evaluations, and uses of the findings. We have made a start along this line, and these efforts merit expansion.

5. *Incorporate the results of research into professional courses at all levels.* In these courses, presentations by the instructor, group discussions, and reports by class members should reflect the best that research has to offer. Students should be shown how to interpret and evaluate completed research projects and thus learn to be better consumers of research.
6. *Develop broad, integrated summaries of research studies completed for a particular phase of the program.* By assembling the results of several research projects on similar problems, it is possible to see how these findings "add up." Points of agreement may be noted in the findings, and thus lead to increased confidence that the findings are valid and merit extended use. Gaps and points of disagreement may also be determined, which may

By means of the foregoing approaches and perhaps others, we can become increasingly effective in making use of the results of research. Thus, research becomes a valuable tool for the continuous improvement of our program, for determining accomplishments which may be interpreted to persons in our field and outside of our field, and for other practical uses. Certainly, these are the kinds of results which we should expect as the pay-off for the time, effort, and money spent on research in vocational agriculture.

**See, for example, *The Art of Plain Talk*, by Rudolph Flesch, New York: Harper and Brothers, 1946.

7. *Promote "service" or "engineering" types of research.* In these, the main objective is to search for practices and procedures now in use which are associated with success in a given phase of the work. Findings of this kind are most likely to impress the rank and file of teachers and hence lead to application and improvements on a broadened scale. Furthermore, these ideas from the grassroots provide fertile soil from which new ideas and new patterns of practices may arise.

To be sure, so-called "fundamental" research has a definite place in our field, and we need more of it. However, in order to implement the results of these kinds of research studies, it may be desirable to make studies of the service type.

8. *Encourage teachers to use the research approach and the results of research in finding solutions for local problems.* We should encourage teachers to undertake research on a small scale and to make use of research findings for local problems. They thereby develop a "feel" for research, a respect for research already available, and a general consciousness that research has something to offer for developing and improving the program on a local level.

9. *Develop and use digests of completed studies.* We have available in vocational education in agriculture two such publications and another is now ready for publication. By means of these, a person may refer quickly to studies related to a problem which he wishes to solve, and thus he may make use of research completed to date. Often, the information in these digests is sufficiently complete; if not, the complete reports for specific studies may usually be secured.

10. *Develop pilot centers in which research findings for particular phases of the work are applied and refined.* By securing the cooperation of teachers and administrators, it is possible to put on trial, in one or more centers, the best that research has given us to date for a particular phase of the program. Such centers also provide a place for continued study and refinement of the practices involved. Thus the workability of new pattern of practices is tested, and if proven successful, the way is paved for adoption in other communities.

By means of the foregoing approaches and perhaps others, we can become increasingly effective in making use of the results of research. Thus, research becomes a valuable tool for the continuous improvement of our program, for determining accomplishments which may be interpreted to persons in our field and outside of our field, and for other practical uses. Certainly, these are the kinds of results which we should expect as the pay-off for the time, effort, and money spent on research in vocational agriculture.

Future Farmers of America

H. N. HANSUCKER

Establishing a filing system for the F.F.A. chapter

E. WILLIAM CRANE, Teacher, Trumansburg, N. Y.



E. William Crane

FOR effectual operation of any Future Farmer chapter, it is necessary that complete records be kept. To do this, an efficient filing system is needed. Every department of vocational agriculture sponsoring an F. F. A. chapter should have available a

file drawer for chapter records, reports and materials.

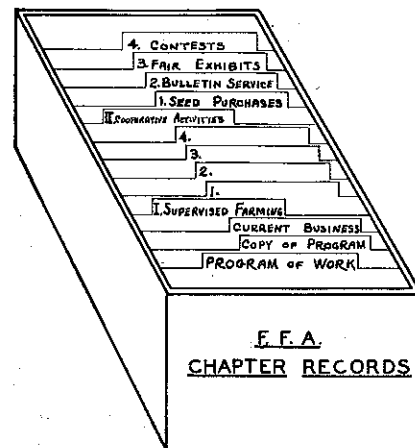
Agriculture teachers have a two-fold purpose in maintaining such a file for F.F.A. material: First, it saves the instructor a great amount of time, energy and annoyance. Secondly, it gives members the satisfaction that comes with complete planning and operation of their local chapter.

Filing System Keyed to Program

A filing system planned to function in direct tie-up with the chapter's program of work is most effective.

Using the program of work as a basis for constructing an index to the file drawer, the titles of the major divisions of the program become the section headings for the file, and the activities included in these divisions provide the titles for the folder headings in the file. Folder headings may be changed to meet the needs of each situation of the individual chapter. An excerpt from the program of one F.F.A. chapter, is presented herewith:

Transferring this portion of the program of work to the file, *Cooperative Activities* becomes a guide on the left of the file drawer. Folders on the right are numbered and labeled according to the activities in that group. The result is a drawer appearing like this:



When the program of work is formulated by the chapter committees the chairmen assume responsibility for the folders of their respective activities. These folders are accurately labeled and assigned a code number to correspond with the numbers pertaining to activities appearing in the program of work. This facilitates finding material and keeping the file in order, (particularly with a number of the members using it.)

Two folders are placed at the front of the file; the first for the program of

ACTIVITY	GOAL	DATE PLANNED	WAYS AND MEANS
A. Cooperative Activities			
1. Buy seeds	100 percent member participation	February May	1. a. Members buy garden and field seeds through F.F.A. to obtain discount. b. Committee members to take orders.
2. Operate a "For Sale" and "Wanted" bulletin service.	All members who have need to make use of	Continuously	2. a. Members responsible for suitable bulletins edited each month. b. Members wishing to use service give notice to designated person responsible for posting it.
3. Have group exhibits at local fair.	100 percent member participation	September October	3. a. Members offer ideas and suggestions for these exhibits. b. Members contribute to developing either Junior or Senior High School Exhibits.

work, the second for current business. The latter contains new material or correspondence that comes to the chapter. From this folder the boys in charge of the committees secure their material and file it. This enables the members to keep up-to-date on their group activity.

The program of work with its tie-up to the file drawer will vary with every F.F.A. chapter. One chapter has its file set-up with its major sections and file folder headings as follows:

PROGRAM OF WORK

- A. Supervised Farming:
 1. Locating desirable animals, seeds, and supplies
 2. Agricultural library
 3. Membership markers
 4. Project tours
 5. Artificial breeding
 6. Loan fund
- B. Cooperative Activities:
 1. Seed purchases
 2. "For Sale" and "Wanted" bulletin service
 3. Fair exhibits
 4. Contest materials
 5. Rallies
 - (a) local
 - (b) other
 6. Father and Son banquet
 7. Equipment and tool loaning
 8. Cooperative chick purchases
 9. Bulletin board material
 10. Scrapbook material
- C. Community Service:
 1. Milk testing
 2. Soil testing
 3. Seed testing
 4. Bulletin distribution
 5. Farm hazard survey
 6. Reforestation
 7. Repairing farm machinery
 8. Equipment lending

CURRENT BUSINESS

- D. Leadership:
 1. Membership degrees
 2. Chapter library
 3. Public speaking
 4. Empire farmer
 5. Public relations
 6. Leadership training
 7. American Agriculturalist award
- E. Earnings and Savings:
 1. Plan for raising chapter funds
 2. Maintain chapter funds
 3. Chapter investments
 4. Member financial goals
 5. Chapter budget
 6. Camp fund

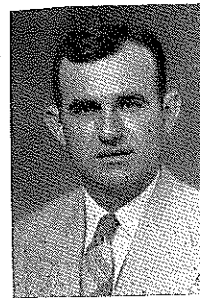
- F. Scholarship:
 1. Honor roll
 2. Activity score cards
 3. Activity contest
- G. Conduct of Meetings:
 1. Training for officers
 2. Refreshments
 3. Parliamentary procedure
 4. Schedule of meetings
 5. Official ceremonies
 6. Degrees

- H. Recreation:
 1. Greenhand initiation
 2. Spring rolling
 3. F.F.A. state camp
 4. Fall rally
 5. Summer picnic
 6. Basketball

This filing system adequately provides for all chapter material. Because the boys formulate the program of work and have the responsibility for maintaining their part of the file they are able to carry on their chapter work efficiently.

Organizing thrift banks in local F.F.A. chapters

J. J. ARCENEUX, Executive Secretary, Louisiana Association F.F.A., Baton Rouge



J. J. Arceneux

individual accounts. It is assumed that the following personnel will have charge of the operation of the bank.

- (1) The chapter president will serve as president of the bank.
- (2) The chapter treasurer or assistant treasurer will serve as cashier of the bank.
- (3) One member from each of the classes in vocational agriculture will serve as assistant cashiers.
- (4) The first vice-president of the chapter will serve as vice-president of the bank.
- (5) A third or fourth year student of vocational agriculture will serve as bank auditor.

It is suggested that for the first year of operation of the bank that the offices of the cashier, assistant cashiers, and auditor be filled by appointments made by the chapter president and chapter adviser. Thereafter, the officers will be elected as prescribed by the constitution.

If, for any reason, arrangements cannot be made with the local commercial bank to receive the deposits, the funds could be deposited with the school principal to be kept in the school safe.

CONSTITUTION AND BY-LAWS F.F.A. THRIFT BANK

ARTICLE I: Name and Purposes of the Organization

SECTION A. *Name*: The name of the organization shall be the _____ F.F.A. Chapter Thrift Bank.

SECTION B. *Purposes*: The purposes for which the organization is formed are as follows:

1. To form the habit of saving
2. To create a feeling of self-respect because of accumulated savings
3. To acquaint the members with the operation and responsibilities of a savings association
4. To help the members accumulate small amounts of money into larger sums to be used for some worthwhile projects.
5. To create a student loan fund to be loaned to F.F.A. members for worthy investments

ARTICLE II: Members and Officers and Their Duties

SECTION A. *Members*: Members of the organization shall consist of all F.F.A. members making regular (at least twice a month) deposits.

SECTION B. *Officers*: The officers of

the Thrift Bank shall consist of the following:

1. President (chapter president)
2. Vice-president (chapter first vice-president)
3. Cashier (chapter treasurer or assistant)
4. Four assistant cashiers (one from each agriculture class)
5. Auditor (preferably a junior or senior)
6. Board of Directors: The above officers with the chapter adviser shall constitute the board of directors of the Thrift Bank.

SECTION C. *Duties of the Officers*:

1. *President*: It shall be the duty of the president to preside at meetings of the bank, the meetings of the board of directors, and promote the general welfare of the bank.
2. *Vice-President*: It shall be the duty of the vice-president, in the absence of the president, to assume all duties of the president.
3. *Assistant Cashiers*: It shall be the duty of each assistant cashier to collect the deposits from their respective classes each week and properly credit each depositor's account (pages 24 to 48, regular chapter treasurer's book).
4. *Cashier*: It shall be the duty of the cashier to collect all deposits from the four assistant cashiers, credit each assistant cashier (page 49, regular chapter treasurer's book) and deposit the total in the _____ Bank to the account of the _____ Chapter F.F.A. Thrift Bank. Other duties of the cashier shall be to prorate and credit interest with the aid of the assistant cashiers, make withdrawals, determine withdrawal penalties and keep minutes of all meetings of the bank and board of directors.
5. *Auditor*: It shall be the duty of the auditor to audit each account, check the amount collected by each cashier against amounts turned in by the assistant cashier to the cashier, and check the amount collected by the cashier against the amount deposited in the commercial bank. This shall be done on the first of each month.
6. *Board of Directors*: The board of directors shall have the power to transact all business of the bank, and enforce all policies as agreed upon by the members of the bank. (Article III, Section A).

SECTION A. *Depositor's Meeting*: An annual meeting of all depositors will be called by the president of the bank on the second Monday following the beginning of school. The purpose of the meeting shall be to elect assistant cashiers, and auditor, take in new members, and formulate policies concerning interest, loans, and withdrawals not covered by the constitution.

Special meetings of the members may be called at any time by the president, providing a two-day notice is given all members.

SECTION B. *Board of Director's Meeting*: A meeting of the board of directors

may be called by the president at any time he deems it necessary.

ARTICLE IV: Deposits and Book-keeping

SECTION A. *Deposits*: Members will make their deposits with their respective assistant cashier each week. It is the duty of each depositor to see that his deposit is properly recorded in ink (pages 24 to 48, regular chapter treasurer's book). Immediately upon completing the collection of deposits from their respective class, the assistant cashier will turn over the total amount collected to the cashier. The cashier will deposit the total collected from the four assistant cashiers in the commercial bank.

SECTION B. *Bookkeeping*: All records will be kept in ink. All deposits made by individual members will be kept in the Thrift Bank Section (Pages 24 to 29) Official F.F.A. Treasurer's Book. Individual accounts will be balanced every time an entry is made.

ARTICLE V: Interest and Withdrawals

SECTION A. *Interest*: The amount of interest earned by the Thrift Bank Account shall be prorated among the individual accounts immediately upon payment of interest by the commercial bank. Accounts withdrawn before interest is declared shall not draw any interest. No interest will be paid accounts of one dollar or less.

SECTION B. *Withdrawals*: Any depositor withdrawing his account or part of his account at any other time except when interest is declared shall be assessed a withdrawal fee of 3 per cent of the amount withdrawn or five cents (5c) which ever is larger. The amount of withdrawal fees collected shall be prorated among the live accounts at the time the interest is prorated. Any member wishing to withdraw his account or part of his account at any time except when interest is declared, will present his wishes in a signed statement to the cashier of the bank. The cashier will figure the withdrawal penalty, withdraw the difference and balance the member's account in his presence.

ARTICLE VI: Loans

SECTION A. *Policies*: Policies governing loans made to F.F.A. members from the Thrift Bank shall be formulated at the annual meeting of the members of the bank and will be binding for one year only. Policies concerning loans made will incorporate the following:

1. Loans will be made to F.F.A. members only.
2. The board of directors will approve all loans.
3. Loans will be made for agricultural undertakings only and for only one year.
4. The borrower will sign a note witnessed and endorsed by his father, mother or guardian.

SECTION B. *Interest*: The rate of interest be not more than 6 per cent per annum.

ARTICLE VII: Amendments

SECTION A. Amendments to this constitution can be made at any annual meeting of the members upon a two-thirds majority vote.

A lesson in simple carpentry



Vernon V. Luther

VERNON V. LUTHER, Teacher, Neponset, Illinois

MOST departments of vocational agriculture have facilities for farm mechanics. A major unit in this phase of the mechanics curriculum is woodworking and farm carpentry. The objective in simple carpentry is to teach simple tasks such as sawing, measuring, boring, chiseling, smoothing and fastening wood.

While we have access to satisfactory references such as *Shopwork on the Farm* by Jones, we need to resort frequently to exercises in teaching skills. The building of hog troughs, huts, wagon boxes and other farm equipment affords an ideal situation to teach skills. But I still find two principal problems in teaching carpentry:

1. Ordinarily boys need to learn many of these skills before they can satisfactorily build equipment out of expensive material.
2. Usually the whole class doesn't have the same needs and interests for constructing projects, i.e., it may not be practical to have all boys provide similar facilities.

Presented herewith is one assignment I have used with some success in teaching woodwork. The project is economical, yet provides for several exercises. I have used this assignment also in teaching veterans, two of whom can build a box in one evening.

WOODWORKING ASSIGNMENT

I. Object:

To acquire skills in sawing, chiseling, measuring, boring, smoothing and fastening wood

II. Materials:

2 feet of 1" x 12" lumber, 6 penny nails, No. 9 screws

III. Tools:

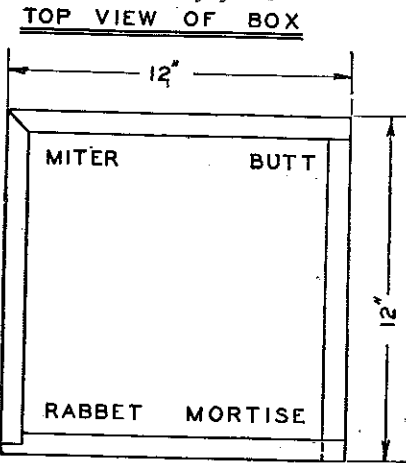
Hammer, rip saw, crosscut saw, square, try square, pencil, wood chisel, brace and bit, screw driver, rasp, sandpaper, mallet, plane, drawknife

IV. Procedure:

1. Mark off 12 inches with the square
2. Mark one 12 inch end into 4 equal parts by use of rule
3. Saw with rip saw
4. Saw off with crosscut saw
5. Join the 4 pieces into a box
 - a. Make a rabbit by use of try square and saw
 - b. Make a one-point mortise joint by use of rule, saw, chisel and mallet. Measure in 1/4 inch
 - c. Make a miter joint by use of miter saw.
 - d. Shorten one end to square box for butt joint
6. Use brace and bit to drill holes for screws.

7. Fasten corners with No. 9 screws
8. Make a 1/4 inch chamfer on the miter-butt side of box by use of drawknife or plane
9. Measure and saw the remaining 12" board to fit in the bottom
10. Fasten the bottom with 6 d nails
11. Smooth the edges of the boards by use of the rasp, plane or sandpaper

V. Reference: *Shopwork on the Farm* by Jones



Veterans farm training study

(Continued from Page 56)

Consequently, careful planning on the part of the teacher is essential to make field trips an integral part of the instruction.

As a further indication of the value of on-farm instruction, 3,970 or 76 percent indicated that the instructor should visit the home farm at least once per month. There is a fairly close correlation between the frequency of requests for visits on the home farm by the instructor and the frequency of class meetings. The frequency of requests for visits to the home farm indicates a need on the part of the trainee for individualized instruction in applying classroom decisions to the improvement of a farming practice. The fact that so many requests were made for farm visitation would indicate that teachers of veterans' farmer training classes are doing an acceptable job of supervising the farming program.

Young Farmer Organization

The response to the question, as to whether they would favor an organization for out-of-school young farmers patterned somewhat after the Future Farmer organization but primarily designed for older age groups, was favorable for such an organization on a local and state basis. Since two-thirds of the group surveyed had never been enrolled in vocational agriculture classes and, consequently had never been members of the Future Farmers of America organization, a large number did not respond. However, 77 per-

cent of those surveyed wanted a local organization, 57 percent wanted a State organization, and 49 per cent wanted a national organization. These facts would seem to indicate that such an organization would fill a need for young farmers on the local level and eventually a state and a national organization might be developed. However, it should be kept in mind that the primary purpose of such an organization must be to aid and interest out-of-school farm youth through a systematic and organized educational program to become satisfactorily established in farming occupations of their own.

Improvement betterment projects

(Continued from Page 59)

worked out. For example, some boy's father may desire a good windbreak for his farmstead. The class could work out a plan showing kinds of trees to be planted, spacings of rows and location with respect to the buildings, and submit this to the farmer for his approval. Trees could be ordered accordingly. When planting time comes the class might be taken to the farm for a demonstration on the proper method of setting trees and then have the boys complete the job as time permits. If such a demonstration is carefully planned it should create interest and start other boys to plan what could be done on their own farms.

Last of all and perhaps of greatest importance in improving our betterment programs should be an attempt to improve our planning when such projects are selected by the boys. We should make more use of the conference period in helping each boy or groups of boys, if several have selected the same project, to develop plans for the satisfactory completion of the projects. It might even require an additional trip or two out to the boy's place to confer with him and his dad as to the proposed plans. One teacher stated that in planning betterment projects each boy draws a line down the center of a sheet of paper and at the top writes these two questions: "What am I going to do?" and "How am I going to do it?" Also each boy must send for at least one bulletin pertaining to the project he has selected.

Benefits from Betterment Projects

As teachers we are often inclined to minimize the value of a betterment project. There is no quick turnover, no spectacular profits derived from a betterment project as is often the case with a production project. Yet any farm boy who has carried out a well planned program of improvement will not only increase the monetary value of the farm, but can add much to the comfort and convenience of the farm family.

We have all heard the expression "Hitch your wagon to a star" which in this case might suggest that a boy plan a large betterment program and do his best to complete it. Some boys may be able to do so but the majority will accomplish little unless the teacher cooperates with them in projecting plans for this important part of the program in vocational agriculture.

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d—directors
 ad—assistant to director
 s—supervisors
 as—assistant supervisors
 rs—regional supervisors
 ds—district supervisors
 ts—teacher trainers
 it—itinerant teacher trainers
 nt—Negro teacher trainers
 rt—research workers
 sms—subject matter specialists

Note—Please report changes in personnel for this directory to Dr. W. T. Spanton, Chief, Agricultural Education, U. S. Office of Education.

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 s—J. C. Cannon, Montgomery
 as—L. L. Sellers, Auburn
 as—H. F. Gibson, Auburn
 as—T. L. Faulkner, Auburn
 as—H. R. Culver, Auburn
 as—B. P. Dilworth, Auburn
 as—H. W. Green, Auburn
 as—J. L. Dailey, Montgomery
 t—S. L. Chesnut, Auburn
 t—R. W. Montgomery, Auburn
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 t—W. A. Schaefer, Tucson

ARKANSAS
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 s—C. R. Wilkey, Little Rock
 as—S. D. Mitchell, Little Rock
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 ds—O. J. Seymour, Arkadelphia
 ds—J. A. Niven, Russellville
 ds—V. H. Wohlford, State College
 t—Ray W. Roberts, Fayetteville
 t—LaVan Shoptaw, Fayetteville
 nt—L. R. Gaines, Pine Bluff

CALIFORNIA
 d—Julian A. McPhee, Sacramento
 ad—Wesley P. Smith, Sacramento
 s—B. J. McMahon, San Luis Obispo
 rs—E. W. Everett, San Jose
 rs—B. R. DeLoach, Los Angeles
 rs—Howard F. Chappell, Sacramento
 rs—A. G. Rinn, Fresno
 rs—H. H. Burlingame, Chico
 rs—J. C. Gibson, Los Angeles
 t—S. S. Sutherland, Davis
 sms—Gen. P. Couper, San Luis Obispo
 sms—J. I. Thompson, San Luis Obispo

COLORADO
 d—E. C. Comstock, Denver
 s—A. R. Bunker, Denver
 t—R. W. Canada, Ft. Collins

CONNECTICUT
 d—Emmett O'Brien, Hartford
 s—R. L. Hahn, Hartford
 t—W. Howard Martin, Storrs

DELAWARE
 d—R. W. Heim, Newark
 s—W. L. Mowlds, Dover
 t—Paul M. Hodgson

FLORIDA
 d—Collin English, Tallahassee
 s—Harry Wood, Tallahassee
 t—E. W. Garris, Gainesville
 t—W. T. Loftin, Gainesville
 it—J. G. Smith, Gainesville
 it—J. L. Foucher, Gainesville
 it—T. L. Barriman, Jr., Gainesville
 it—Otis Bell, Gainesville
 nt—L. A. Marshall, Tallahassee
 nt—G. W. Conoly, Tallahassee

GEORGIA
 d—M. D. Mobley, Atlanta
 s—T. G. Walters, Atlanta
 ds—George L. Martin, Tifton
 ds—C. M. Reed, Carrollton
 ds—J. N. Baker, Swainsboro
 ds—J. H. Mitchell, Athens
 t—John T. Wheeler, Athens
 t—R. H. Tolbert, Athens
 t—G. L. O'Kelley, Athens
 t—A. O. Duncan, Athens
 t—T. D. Brown, Athens
 nt—Alva Tabor, Fort Valley
 nt—S. P. Fugate, Fort Valley

HAWAII
 d—W. W. Beers, Honolulu, T. H.
 s—W. H. Coulter, Honolulu, T. H.
 as—Riley Ewing, Honolulu, T. H.
 as—Takumi Kono, Hilo, Hawaii, T. H.
 t—F. E. Armstrong, Honolulu, T. H.

IDAHO
 d—William Kerr, Boise
 s—Stanley S. Richardson, Boise
 as—Ed. Lovell, Pocatello
 t—H. A. Winner, Moscow
 t—Dwight L. Kindschy, Moscow

ILLINOIS
 d—Ernest J. Simon, Springfield
 s—J. E. Hill, Springfield

as—J. B. Adams, Springfield
 as—A. J. Andrews, Springfield
 as—H. M. Strubinger, Springfield
 as—P. W. Proctor, Springfield
 as—H. R. Damisch, Springfield
 t—H. M. Hamlin, Urbana
 t—G. P. Deyoe, Urbana
 t—J. N. Weiss, Urbana
 t—L. J. Phipps, Urbana
 sms—Melvin Henderson, Urbana
 sms—H. J. Rucker, Urbana
 sms—Harold Witt, Urbana

INDIANA
 d—Ben H. Watt, Indianapolis
 s—H. B. Taylor, Indianapolis
 t—B. C. Lawson, Lafayette
 rt—S. S. Cromer, Lafayette
 it—K. W. Kiltz, Lafayette
 it—H. W. Leonard, Lafayette
 it—E. E. Clavin, Lafayette
 it—I. G. Morrison, Lafayette

IOWA
 d—L. H. Wood, Des Moines
 s—H. T. Hall, Des Moines
 as—M. Z. Hendren, Des Moines
 t—Barton Morgan, Ames
 t—John B. McClelland, Ames
 t—J. A. Starrak, Ames
 t—T. E. Sexauer, Ames

KANSAS
 d—C. M. Miller, Topeka
 s—L. B. Pollom, Topeka
 t—A. P. Davidson, Manhattan
 it—L. F. Hall, Manhattan

KENTUCKY
 d—Watson Armstrong, Frankfort
 s—E. P. Hilton, Frankfort
 as—B. G. Moore, Frankfort
 as—S. S. Wilson, Frankfort
 t—Carse Hammonds, Lexington
 it—W. R. Tabb, Lexington
 it—Stanley Wall, Lexington
 nt—P. J. Manly, Frankfort

LOUISIANA
 d—John E. Cox, Baton Rouge
 s—D. C. Lavergne, Baton Rouge
 as—J. J. Arceneaux, Baton Rouge
 as—J. N. Carpenter, Baton Rouge
 as—J. J. Stovall, Baton Rouge
 t—Roy L. Davenport, Baton Rouge
 t—J. C. Floyd, Baton Rouge
 t—M. C. Gant, Baton Rouge
 sms—Harry Brand, Baton Rouge
 t—A. Larriviere, Lafayette
 t—A. A. LeBlanc, Lafayette
 nt—M. J. Clark, Scottlandville
 nt—D. B. Matthews, Scottlandville

MAINE
 s—Herbert S. Hill, Orono
 as—Wallace H. Elliott, Orono

MARYLAND
 d—John J. Seidel, Baltimore
 s—Harry M. MacDonald, Baltimore
 t—Arthur M. Ahalt, College Park
 nt—J. A. Oliver, Princess Anne

MASSACHUSETTS
 d—M. Norcross Stratton, Boston
 s—John G. Glavin, Boston
 t—Jesse A. Taft, Amherst
 t—Charles F. Oliver, Amherst

MICHIGAN
 d—Ralph C. Wenrich, Lansing
 s—Harry E. Nesman, Lansing
 s—Luke H. Kelley, Lansing
 s—Raymond M. Clark, Lansing
 s—John W. Hall, Lansing
 t—H. M. Byram, East Lansing
 t—G. C. Cook, East Lansing
 t—Paul Sweeney, East Lansing

MINNESOTA
 d—Harry C. Schmidt, St. Paul
 s—Ray Cochran, St. Paul
 t—A. M. Field, St. Paul
 t—M. J. Peterson, St. Paul

MISSOURI
 d—Tracy Dale, Jefferson City
 s—C. M. Humphrey, Jefferson City
 ds—J. A. Bailey, Jefferson City
 ds—Joe Moore, Mt. Vernon
 t—E. J. Early, Lexington
 t—G. F. Ekatrom, Columbia
 t—C. V. Roderick, Columbia
 sms—Joe Duck, Columbia

as—J. E. Mauldin, Jr., Jackson
 as—P. Fathore, Jackson
 as—R. H. Fisackerly, 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
 t—J. F. Scoggin, State College
 t—O. L. Snowden, State College
 sms—D. W. Skelton, State College
 sms—A. E. Strain, State College
 nt—A. D. Fobbs, Alcorn

MONTANA
 d—Ralph Kenok, Bozeman
 s—A. W. Johnson, Bozeman
 as—Arthur B. Ward, Bozeman
 t—R. H. Palmer, Bozeman
 t—H. E. Rodeberg, Bozeman

NEBRASKA
 d—G. F. Liebendorfer, Lincoln
 s—L. D. Clements, Lincoln
 as—H. W. Deems, Lincoln
 t—H. E. Bradford, Lincoln
 t—C. C. Minter, Lincoln

NEVADA
 d—Donald C. Cameron, Carson City
 s—Lloyd Dowler, Carson City

NEW HAMPSHIRE
 d—Walter M. May, Concord
 s—Earl H. Little, Concord

NEW JERSEY
 d—John A. McCarthy, Trenton
 s—H. O. Sampson, New Brunswick
 as—O. E. Kiser, New Brunswick
 as—W. H. Evans, New Brunswick

NEW MEXICO
 s—L. C. Dalton, State College
 as—Alan Staley, State College
 ds—O. T. Ryan, Lubbock
 ds—Vannoy Stewart, Commerce

NEW YORK
 d—Oakley Furney, Albany
 s—A. K. Getman, Albany
 s—W. J. Weaver, Albany
 as—R. C. S. Sutliff, Albany
 as—J. W. Hatch, Buffalo
 t—Roy A. Olney, Ithaca
 t—E. R. Hoskins, Ithaca
 t—W. A. Smith, Ithaca
 t—W. B. Kusta, Ithaca

NORTH CAROLINA
 d—J. W. Smith, Raleigh
 s—Roy L. Thomas, Raleigh
 s—R. J. Peeler, Raleigh
 ds—E. N. Meekins, Raleigh
 ds—J. M. Osteen, Rockingham
 ds—T. H. Stafford, Asheville
 ds—T. B. Elliott, Woodland
 ds—N. B. Chesnut, Whiteville
 t—Leon E. Cook, Raleigh
 t—J. O. Armstrong, Raleigh
 t—J. K. Coggin, Raleigh
 t—F. A. Nylund, Raleigh
 nt—S. B. Simmons, Greensboro
 nt—C. E. Dean, Greensboro
 nt—W. T. Johnson, Greensboro

NORTH DAKOTA
 d—A. F. Arnason, Grand Forks
 s—Ernest L. DeAlton, Fargo
 as—Winston H. Dolve, 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—F. J. Ruble, Columbus
 ds—D. R. Purkey, Columbus
 t—W. F. Stewart, Columbus
 t—H. G. Kenestrick, Columbus
 t—C. E. Rhoad, Columbus
 t—Ralph E. Bender, Columbus
 t—A. O. Kennedy, Columbus
 rt—Ray Fife, Columbus

OKLAHOMA
 ds—J. B. Perky, Stillwater
 as—W. R. Felton, Stillwater
 ds—Byrle Killian, Stillwater
 ds—Hugh D. Jones, Stillwater
 ds—Cleo A. Collins, Stillwater
 ds—Benton F. Thomason, Stillwater
 FFA—Tom Daniel, Stillwater
 t—C. L. Angerer, Stillwater
 t—Don M. Orr, Stillwater
 t—Chris White, Stillwater
 it—Robert R. Price, Stillwater
 nt—D. C. Jones, Langston

OREGON
 d—O. I. Paulson, Salem
 s—Ralph L. Morgan, Salem
 as—M. C. Knox, Olympia
 as—H. M. Olsen, Olympia
 as—E. M. Webb, Pullman
 as—Oscar Lorenz, Pullman

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
 t—C. S. Anderson, State College
 t—David R. McClay, State College
 it—Glenn Z. Stevens, State College

PUERTO RICO
 d—L. Garcia Hernandez, San Juan
 s—Nicholas Mendes, San Juan (on leave)
 s—Samuel Molinary, San Juan (acting)
 as—Rafael Muller, San Juan
 as—Ferdinando A. Rodriguez, San Juan
 as—Juan Acosta Henriquez, San Juan
 ds—Frederico Carbonell, San Juan
 ds—Juan Melendez, Cayey
 ds—Gregorio Mendez, Arecibo
 ds—Nicolas Hernandez, Aguadilla
 t—Juan Robles, Mayaguez

RHODE ISLAND
 d—George H. Baldwin, Providence
 t—Verrett L. Austin, Providence

SOUTH CAROLINA
 d—Verd Peterson, Columbia
 s—R. D. Anderson, Columbia
 as—P. G. Chastain, Chester
 as—W. E. Gore, Columbia
 ds—W. M. Mahoney, Honea Path
 ds—J. H. Yon, Loris
 ds—W. E. Carter, Walterboro
 t—B. H. Stribling, Clemson
 t—J. B. Monroe, Clemson
 t—T. E. Duncan, Clemson
 t—F. E. Kirkley, Clemson
 t—W. C. Bowen, 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

TENNESSEE
 ds—G. E. Freeman, Nashville
 as—J. W. Brimm, Nashville
 ds—H. N. Parks, Gallatin
 ds—L. A. Carpenter, Knoxville
 ds—S. L. Sparks, Nashville
 t—N. E. Fitzgerald, Knoxville
 t—B. S. Wilson, 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. Manira, Austin
 as—R. Lano Barron, Austin
 as—George H. Hurt, Austin
 ds—O. T. Ryan, Lubbock
 ds—Vannoy Stewart, Commerce

UTAH
 d—E. Allen Bateman, Salt Lake City
 s—Mark Nichols, Salt Lake City
 as—Elvin Downs, Salt Lake City
 t—L. R. Humphreys, Logan

VERMONT
 d—John E. Nelson, Montpelier
 s—C. D. Watson, Burlington
 t—James E. Woodhill, Burlington

VIRGINIA
 d—Richard N. Anderson, Richmond
 s—F. B. Cale, Richmond
 as—R. E. Bass, Richmond
 ds—W. R. Emmons, Boykins
 ds—J. O. Hoge, Blacksburg
 ds—W. R. Leggs, Winchester
 ds—J. C. Green, Powhatan
 ds—W. C. Dudley, Appomattox
 ds—J. A. Hardy, Blacksburg
 t—H. W. Sanders, Blacksburg
 t—C. E. Richard, Blacksburg
 t—C. S. McLaran, Blacksburg
 nt—J. R. Thomas, Ettrick
 nt—A. J. Miller, Ettrick
 nt—M. A. Fields, Ettrick

WASHINGTON
 d—H. G. Halstead, Olympia
 s—Bert L. Brown, Olympia
 as—M. C. Knox, Olympia
 as—H. M. Olsen, Olympia
 as—E. M. Webb, Pullman
 as—Oscar Lorenz, Pullman

WEST VIRGINIA
 d—John M. Lowe, Charleston
 s—H. N. Hansacker, Charleston
 as—S. D. McMillen, Charleston
 t—C. W. Parsons, Morgantown
 t—D. W. Hill, Morgantown

WISCONSIN
 d—C. L. Greber, Madison
 s—Louis M. Samsan, Madison
 t—J. A. James, Madison
 it—Ivan Fay, Madison
 it—Clarence Bonack, Madison
 t—V. E. Nylin, Platteville
 t—J. M. May, River Falls

WYOMING
 d—Sam Hitchcock, Cheyenne
 s—Percy Kirk, Cheyenne
 t—Jack Ruch, Laramie