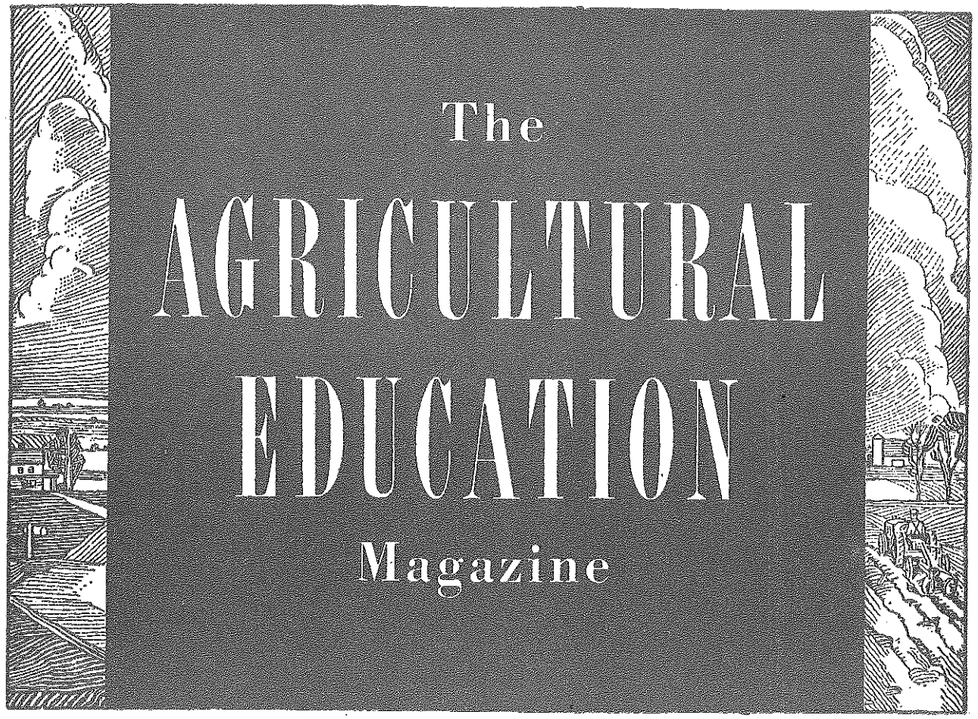
Vol. 15 April, 1943 No. 10



The AGRICULTURAL EDUCATION Magazine

"THE school must help to develop in each individual a sense of responsibility for, and a willingness to contribute to the welfare of the group."

VOCATIONAL AGRICULTURE
For
TEACHERS
Teacher Educators
And Supervisors
OFFICIAL PUBLICATION

The Agricultural Education Magazine

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

MANAGING EDITORS

O. C. Aderhold, Athens, Georgia.....Editor
H. M. Byram, East Lansing, Michigan.....Associate Editor
F. E. Moore, Des Moines, Iowa.....Consulting Editor
G. F. Ekstrom, St. Paul, Minnesota.....Business Manager

SPECIAL EDITORS

G. P. Deyoe, East Lansing, Michigan.....Methods
A. P. Davidson, Manhattan, Kansas.....Book Reviews
S. S. Sutherland, Sacramento, California.....Professional
R. W. Gregory, Washington, D. C.....Professional
C. S. Anderson, State College, Pennsylvania.....Research
A. W. Tenney, Gainesville, Florida.....Future Farmers of America
C. L. Angerer, Stillwater, Oklahoma.....Supervised Practice
Lester B. Pollom, Topeka, Kansas.....Farm Mechanics
E. R. Alexander, Washington, D. C.....Part-time Schools
W. Howard Martin, Burlington, Vermont.....Evening Schools

REGIONAL REPRESENTATIVES

North Atlantic, E. R. Hoskins.....Ithaca, New York
Southern, M. D. Mobley.....Atlanta, Georgia
Central, G. F. Ekstrom.....St. Paul, Minnesota
Western, William Kerr.....Boise, Idaho

EDITING-MANAGING BOARD

F. E. Armstrong, Hawaii; E. R. Hoskins, New York; M. D. Mobley, Georgia; R. W. Gregory, Washington, D. C.; A. K. Getman, New York; William Kerr, Idaho; W. T. Spanton, Washington, D. C.; F. E. Moore, Iowa; G. F. Ekstrom, Minnesota; W. F. Stewart, Ohio; H. M. Byram, Michigan; O. C. Aderhold, Georgia.

Subscription price, $1 per year, payable at the office of the Meredith Publishing Company, Des Moines, Iowa. Foreign subscriptions, $1.25. Single copies, 10 cents. In submitting subscriptions, designate by appropriate symbols new subscribers, renewals, and changes in address. Contributions should be sent to the Special Editors or to the Editor. No advertising is accepted.

Entered as second-class matter, under Act of Congress, March 3, 1879 at the post office, Des Moines, Iowa.

CONTENTS

Editorial Comment

President of A. V. A. for 1943

Fred A. Smith

THE American Vocational Education Association at the Toledo meeting in December elected Fred Alfred Smith, Director of Vocational Education for Arkansas, as its president and leader for 1943. Mr. Smith succeeds Mr. John Seidel of Baltimore in this office.

Fred Smith brings to the position of leadership in the A.V.A. many years of experience in the field of vocational education. He first came into prominence as the Master Teacher of Agriculture in Arkansas in 1927. As a result of his outstanding work as a teacher of agriculture he was brought into the Arkansas Office of Education as district supervisor. In 1939 he was made director of vocational education for his state.

Perhaps no man in agricultural education has rendered a greater service in acquainting legislative leaders with the needs for a strong vocational education program in this country. Working in co-operation with Mr. L. H. Dennis and the Executive Committee of the American Vocational Association, he has spent many months in Washington in the interest of legislation for education.

Mr. Smith served on the Executive Committee of the A.V.A. for several years and has been the vice-president, representing agriculture since 1939. He has also been a member of the Public Relations Committee, the Membership Committee, and the Legislative Committee for the association.

Not only is Mr. Smith one of the outstanding leaders in the vocational education field, but he is also one of the largest and most progressive farmers in Arkansas. He maintains a herd of 100 registered Jerseys, 100 registered Herefords, and 75 registered Shorthorn cattle.

Mr. Smith will give to the A.V.A. wise leadership during this year, when unity of purpose and action is vital and necessary.

Special Editors

J. B. McClelland

E. R. Alexander

Farmer Classes

The *Agricultural Education Magazine* welcomes Mr. E. R. Alexander, Specialist in Agricultural Education, Washington, D. C., as one of the special editors for the part-time and evening section of the magazine. Mr. Alexander taught vocational agriculture from 1926 to 1935 in South Carolina. From 1937 to 1941 he was on the supervisory staff for that state and is now on a leave of absence to serve as Specialist in Agricultural Education for part-time and evening schools with the United States Office of Education. Mr. Alexander has evidenced special interest in part-time work and will provide excellent leadership for this section of the magazine.

Mr. Alexander succeeds Dr. John McClelland of Iowa as editor of this section. Mr. McClelland has given several years of excellent service and has stimulated the production of excellent material for teachers interested in part-time and evening class work.

A. K. Getman

S. S. Sutherland

Professional Section

Mr. S. S. Sutherland joins Dr. R. W. Gregory as editor of the professional section of the *Agricultural Education Magazine*. Mr. Sutherland is Supervisor of Agricultural Teacher-training, Bureau of Agricultural Education, and lecturer in education, University of California. Mr. Sutherland has had a rich background of experience in teaching vocational agriculture and agricultural engineering and in directing the program of teacher education at Montana State College and in California.

Mr. Sutherland succeeds Dr. A. K. Getman as one of the professional editors. Dr. Getman has served the magazine well for many years. He was one of the founders of the magazine and has given of his time and effort to its development thru the years.

G. P. Deyoe

A. M. Field

Methods Section

Dr. George P. Deyoe, Associate Professor of Education, Michigan State College, takes over the responsibility with this issue of the methods section. Dr. Deyoe succeeds Dr. A. M. Field as editor of the methods section.

Dr. Deyoe holds degrees from Iowa State College, University of Chicago, and Columbia University. Prior to assuming his present responsibilities at Michigan State College, he taught vocational agriculture in the public schools of Iowa, and agriculture and science at Platteville, Wisconsin. Dr. Deyoe is a frequent contributor to the magazine and is co-author of a book entitled *Getting Acquainted With Agriculture;* also, he is author of a book entitled *Supervised Farming in Vocational Agriculture.* He has held places of importance on state and on national committees dealing with problems of vocational education in agriculture.

Dr. Field has given continuous service as special editor for more than a dozen years. He has been largely responsible for keeping this section of the magazine at a high professional level.

The agricultural section of the A.V.A. gave a rising vote of thanks to Doctors Field, Stewart, Getman, and McClelland at the Toledo meeting for their excellent service to the professional development of teachers of agriculture in America.

S. S. SUTHERLAND

Professional

R. W. GREGORY

The History of Agricultural Education in the United States*

F. W. LATHROP, Specialist in Agricultural Education, Washington, D. C.

DR. RUFUS W. STIMSON attended the Baltimore meeting of the American Vocational Association previous to his retirement in 1938 as State Supervisor of Agricultural Education in Massachusetts. At that time some of his friends conceived the idea of utilizing his services in preparing a history of vocational agriculture. We thought he might draw upon the experiences of older leaders in our field as well as upon his own long experience.

Dr. Stimson entered into this plan with enthusiasm. However, he insisted on enlarging the scope of the project to include the teaching of agriculture in the elementary grades and instruction of less than college grade in colleges of agriculture. He refused to accept 1917 as the beginning point in the history. He stated that Squanto, who showed the Massachusetts settlers how to plant their corn, was the first teacher of agriculture in Massachusetts. Not to be outdone, the Georgia group described the teaching activities of Tomochichi, king of the Yamacraw tribe, previous to 1733.

The enlarged plan raised some doubts in the mind of Dr. J. C. Wright, but he continued to give his sympathetic support, without which we could not have finished the job. Dr. Stimson laid plans to the end that every state was requested to write its own history. Every state and territory responded. The total number of contributors is 170. The history was written thru the efforts of a representative group of agricultural educators following a plan thoroly in harmony with the best democratic tradition.

It should be added that the support of this project by the Office of Education was materially supplemented by a grant from the General Education Board.

It was a difficult job to reduce the 5,500 typewritten pages of the contributors to 1,200 pages. The page proof of the publication consists of 642 pages. My present purpose is to give you a picture of this publication thru sampling. I will select certain paragraphs which I think will be of interest to you. These paragraphs are not more significant than others; their selection does not necessarily indicate anything about the relative quality of the different state histories. My sympathy goes out to those who have to select all-American football teams. The following excerpts are presented without further comment.

> This is the first article of a series which will appear in the *Agricultural Education Magazine* dealing with the history of agricultural education in the United States. Dr. Rufus W. Stimson has devoted much effort and energy to compiling this record of events. He has been assisted in this worthy undertaking by Dr. F. W. Lathrop and 170 contributors from the several states. The May issue will carry Dr. Stimson's article on "Agricultural Career Education in the United States at Dirt Farmer Levels, 1621-1942, Topical Chronological Key."—Editor

California

Start of "Cadet" System

In 1926, also, start was made in another activity which for some time was peculiar to this state, and which later was recognized as a pattern for other teachers had been largely an institutional responsibility, and practice teaching had been conducted during interscession in various departments thruout the state.

Starting in 1926, practice teaching was conducted on a semester basis under the direction of the teacher-training department of the University of California. Cadet teachers were placed in agricultural departments of high schools in certain sections of the state, where they remained during the entire semester, attending classes once a week for the purpose of receiving instruction in professional methods. Thus was a start made in the so-called "cadet" training program, which later was to become a joint function of the State Board for Vocational Education and the university, and to set a new standard in providing participating training for prospective teachers.

Connecticut

Vocational Agriculture in a Regional High School

The following excerpts are from *The Housatonic Valley Regional High School*, by Lucille M. Woodward, published by the State Department of Education, Hartford, Connecticut.

On the morning of September 25, 1939, a new kind of school opened its doors to 383 students from six towns in northwest Connecticut. Had there been no new school, these young people would have entered one of four small high schools—good, as such high schools go—but because of limitations of size, personnel, funds, and tradition, quite inadequate to furnish the kind of training demanded by conditions of the times . . .

To the casual observer and one not acquainted with the traditions of New England towns, the Housatonic Valley High School may appear to be just another consolidated high school. In one way, however, it is unique. To acquire it, six towns gave up the individual control

Vocational courses of all kinds, except the commercial, are new to the young people of these towns, and it is in them that the success of the school is most apparent at the present time. The enrollment in these courses, which include homemaking, agriculture, and industrial arts, has greatly increased for the second year . . .

The social affairs arranged by the girls of the homemaking department, the home projects of the agriculture department, and the activities of the Future Farmer groups, and the work of the industrial arts students which has provided needed equipment for the school are all serving as avenues thru which students learn to work together and realize the satisfaction of accomplishment.

Georgia

Two meetings sponsored by the General Education Board were held in the state in 1902, one to discuss the educational problems of Georgia and the South, and the other to make detailed country-side studies on which definite action might be based. So much interest and enthusiasm was created at these conferences that they were referred to for years as the beginning of the "educational revival" in the state.

Hon. Hoke Smith addressed the April conference and presented for the first time the statement that "not one-third of our agricultural land is today being tilled, and that one-third not tilled one-third as well as it should be." The two meetings seem to have been responsible in part for the later educational efforts of such pioneers as Mr. Terrell, known as the "educational Governor," M. L. Duggan, Mr. Stewart, and G. C. Adams. It was Governor Terrell who first recommended in the fall of 1902 the creation of an agricultural school in each of the 11 congressional districts of the state.

Smith-Hughes Act

Senator Hoke Smith and Representative Dudley M. Hughes did more than merely sponsor the Vocational Education Bill. They were untiring workers on President Wilson's "Commission on National Aid to Vocational Education." Senator Smith was elected chairman of the commission Apirl 2, 1914. He and the other members of the commission often worked beyond their strength in order to complete their important work.

Illinois

Unified vs. Dual System of Education for Farm Youth

*Presented at the meetings of the American Vocational Association, Toledo, Ohio, Dec., 1942.

W. M. Hays of Minnesota, Assistant Secretary of Agriculture during the years preceding 1917, had bills introduced in Congress authorizing the establishment of a Federal system of county agricultural high schools. Dean Eugene Davenport of Illinois opposed this plan. He favored the unified plan, which called for the introduction of agriculture as a course of study in the established high schools of the community. His book *Education for Efficiency*, written in 1919, did much to create public sentiment thruout the United States in favor of the unified plan.

Dean Davenport made many addresses in behalf of the unified plan. Following is an excerpt from his address delivered at the 28th annual meeting of the Society for the Promotion of Agricultural Science in 1907:

"Now, two radically different methods have been proposed for meeting this new educational demand in the secondary schools. The one method proposes a separate system of schools for country people, to be known as agricultural high schools, farm schools, etc. In these, agriculture for boys and domestic science for girls should be the leading subjects taught, assuming that existing high schools in general shall be known and considered as 'city schools,' whose business it is to minister to the people of the cities and their concerns as the agricultural schools should minister to the affairs of the country.

"Several of these agricultural high schools have been already established, notably in Wisconsin and Georgia, and a bill which is now in Congress is designed to make the distinction not only clear but permanent, as between agricultural high schools that serve the people and interests of the country, and city high schools that serve the people and interests of the city.

"The other method proposes not one system of secondary schools for the country and another for the city, but a single system for both. It proposes, for example, that the present system of high schools should not be denominated 'city high schools' with a narrow range of interests, but that they be so expanded in personnel and equipment, and so enriched in courses, as to minister to the natural interests of their environment, whatever they may be, agricultural, mechanical, commercial, literary, and what not; and that the present ungraded schools in the thinly populated country districts shall be condensed into larger and stronger units, meeting as they are able the educational needs of their communities and evolving naturally and ultimately into true secondary schools.

"The one proposal is logically for as many systems and types of schools as there are distinct interests and lines of instruction; the other is for a single system of education, with highly differentiated courses taught in the same schools. The one proposes to insert itself by main strength into the very heart of our system of secondary education; the other must of necessity develop by gradual process."

Iowa

Agriculture in the common rural and graded schools of Iowa can be traced . . . directly to Perry G. Holden . . . Mr. Holden came to Iowa in 1903 as a member of the teaching staff of Iowa State College. He immediately became active in carrying agricultural education to the people of the state. . . . He worked with adults in farmers' institutes, and local and county fairs, secured the co-operation of the railroads in running special educational exhibit trains, organized test and demonstration plots, and carried a program of agricultural instruction to the rural schools thru the county superintendents of the state. In 1906 Dr. Holden became Director of Agricultural Extension of Iowa and soon thereafter added Ashley V. Storm as Extension Specialist to work with the schools.

The most noteworthy work in agriculture in rural schools seems to have been carried on in three counties, Page, Keokuk, and Wright, under the leadership of their superintendents of schools, Jessie Field, Cap Miller, and O. H. Benson, respectively. Most of the agricultural instruction in the rural schools centered around club work with corn or livestock projects. The program developed in . . . Page County . . . was particularly outstanding . . . Two well-known books, Jessie Field's *The Corn Lady* and Herbert Quick's *The Brown Mouse*, describe agricultural teaching at its best in Iowa rural schools.

Under the inspiration and teaching of Dr. Lancelot, who strongly advocated the problem method of teaching, most vocational teachers trained at Iowa State College have found this method preferable to all others in their high-school teaching. Iowa is probably unique in the high degree of development of the problem method of teaching. This method . . . involves a series of problems representing true-to-life situations confronting the students, thru which students gain a thoro understanding of the basic principles by application of these principles to real, vital concerns in their lives.

Massachusetts

Home and School Plan Results

After a lapse of 10 years, and marking the conclusion of Mr. Snedden's service as Massachusetts Commissioner of Education, a résumé of the first 10 years of progress was published in which the supervisor of agricultural education stated that his experience with the school and home farm co-operation plan, which had been carried on in both high-school departments and separate no-dormitory schools, led him to believe that the longer it had been followed the better it had been liked. His further summing up of results included these specifications.

The results . . . appear at the homes of the pupils in improved farm methods and products. They appear in the earnings of pupils. As a means of vitalizing the instruction in the principles of agriculture, the project plan is of fundamental importance, because it provides for the immediate application of principles in productive effort. The results are the more striking when this plan of training is compared with a dormitory system . . . At the end of a dormitory school course a boy goes forth empty-handed to make his start in life. Under the home project plan . . . a boy at the end of his course not only has had four years of thoro training, but he may have accomplished four years of farm development and may have very tangible results to show for his efforts. The boy who starts a nursery of 100 trees and transplants them into an orchard has the trees themselves to show for his training. The boy who starts with

show for his efforts and for his educational experience.

New York

Group Projects

The home project had scarcely taken root as a device for directed-pupil activity before the plans of teachers were expanded to include group or co-operative projects conducted by two or more members of an agricultural class in such fields as gardening, poultry husbandry, landscaping, co-operative ownership of purebred sires, carload purchases of fertilizer or lime, purchases of purebred seed for a class, or reforestation of an area of public land in the community.

It was to be expected that some of these joint undertakings would collapse under the impact of poorly prepared plans, misunderstandings, overenthusiasm, poor management, or adverse marketing conditions. By and large, however, these early group projects were of inestimable value in focusing the interest of pupils on the need for an advantage of co-operative activity. Indeed, the influence of these projects is to be noted in the early development of local associations of young farmers, later merged into the national organization, the Future Farmers of America.

Ohio

The Ohio State Board for Vocational Education was so impressed with the possibilities of work with the young-farmer group that in 1924–25 W. H. Brucc was employed to conduct a survey of young men on farms in representative communities of the state. Twenty-one vocational agriculture teachers co-operated in the survey. The survey indicated that education for young farmers 16 to 25 years of age should be an integral part of any well-rounded vocational agriculture program in Ohio. It provided one of the first scientific approaches to the complex program of organizing educational, social, and recreational programs for out-of-school youth in the United States.

Following the successful completion of the first course for young farmers in 1922, the State Board for Vocational Education further recognized young and adult farmer-instruction by providing special remuneration for teachers to take care of such special expenses as they might have in connection with the organization of courses and the supervision of farm practice.

Future Farmers of America

About 7,300 persons attended the 1940 convention, at which the organization adopted the largest annual budget it had ever set up. Over $31,000 was allocated in this budget, $10,000 of which was set aside for further development of the national camp. In March, 1941, ground was broken for the first camp buildings, and further restoration work was started on George Washington's old gristmill, which adjoins the camp. Starting July 1, 1940, under an arrangement with the Virginia State Conservation Commission, the mill was to be kept open to the public by the Future Farmers of America organization. The new national camp was opened for the first member visitors on June 1, 1941.

Methods

G. P. Deyoe

The California Plan for the Training of Emergency Farm Labor

JULIAN A. McPHEE, State Supervisor, San Luis Obispo, California

J. A. McPhee

IN NO other state of the nation is the seasonal farm laborer so important as in California. The majority of farms in California are specialty production farms, devoted entirely to one or two crops. Farmers may not even live on these tracts, but in nearby towns. Every square foot of land may be planted to oranges, lima beans, or peaches.

California also has the nation's greatest percentage of so-called "large-farms," generally owned by corporations or estates, and farmed as an agricultural business. The heirs of the estate or the stockholders of the corporation may never see the land; it is managed by superintendents and foremen and tilled by permanent or seasonal crews.

In this state, an army of 50,000 transient workers is needed for seasonal labor jobs from November 1 to about May 1; 100,000, from May 1 to August 1; and 150,000, from August 1 to November 1. Since the average seasonal worker is employed only four and one-half months per year, it is estimated that California requires 225,000 different persons for seasonal jobs on farms, exclusive of the work of the farmer and his family or of permanent farm employees.

Japanese Have Moved From Farm

Further complicating the war-problem situation, California had a population of nearly 100,000 Japanese, most of whom were farmers producing fruit, vegetables, or poultry products. These have all been evacuated from the land they tilled so intensively.

In the early months of 1942 there were enough transients left to do most of the work required by the basic 50,000 workers needed to about May 1. Most of the rest of the seasonal work in 1942 was done by workers recruited from high schools, church groups, women's clubs, service clubs, and any other place they could be found. Little food was lost thru lack of labor. Few metropolitan residents actually went out into farming areas, altho much publicity attended the few thousand who did.

Prospects for 1943 are very much poorer. Most of the Japanese had planted their crops in 1942 before they were moved to relocation centers; white operators harvested the crops. This year thousands upon thousands of fertile acres capable of intensive cultivation, formerly grain or more extensive row crops.

Important Crop Enterprises

Thousands of workers available during some of the harvesting season of 1942 have since gone into the armed forces or into highly paid industrial employment. California, with about five percent of the national population, has nearly 10 percent of the war contracts. Demand for industrial workers is keen.

How important to the American food situation is it that California crop production be maintained? Figure it out yourself. California is one of the three top states in the nation in agricultural production. It is true that the American public can get along without some of the specialty products. But California produces 22 percent of the entire United States tonnage of vegetables which go into commercial channels and 29 percent of the nation's value of vegetables, excluding potatoes. Its income from vegetables, fruits, nuts, and grain was near the billion-dollar mark for 1942.

In a normal year California produces practically 100 percent of the nation's commercial domestic supply of lemons, almonds, olives, dates, and artichokes; 88 percent of the grapes, including all of the raisins; 99 percent of the figs; 91 percent of the walnuts; 90 percent of the avocados; 89 percent of the apricots; 85 percent of the prunes and plums; 74 percent of the garlic; 62 percent of the carrots; 60 percent of the lettuce; and 57 percent of the oranges. The state produces almost all the canning and drying peaches. These are only a part of the significant figures.

Most of this tremendous storehouse of food, plus many other crops not mentioned above, is harvested, planted, thinned, sprayed, or given other treatment by transient labor crews. The need for these workers is intense, during peak periods. One hundred thousand tons of tomatoes may have to be harvested in two or three counties in two weeks. The entire raisin harvest, calling for more than a million man-days of labor in about six weeks, is confined largely to a single county. All the available manpower in such an area cannot cope with the peak load—outside labor is inevitable. From what source will it come?

Problem Faced by Agricultural Education

The California State Bureau of Agricultural Education, the division of the State Department of Education which administers the program of vocational agriculture in California, foresaw this immense problem early in 1942. At that time growers, accustomed to the "contrews or a ready supply of transient family labor such as the "dust-bowlers" provided, were not ready to use the relatively inefficient work of volunteer crews. They made no provisions to recruit or employ students, housewives, or store clerks on weekends. They hoped for a miracle which would bring in many thousands of Mexican nationals or somehow provide the usual adult seasonal-labor crews.

By mid-summer of 1942 this picture began to fade, and during the peak period of August thru October, 1942, growers used any kind of seasonal labor they could find. Surprising to many of them, the crews of vigorous youngsters or non-farm people working holidays, weekends, or other periods, proved quite effective. Growers found that these crews were not just working for money, but for victory in a world war. They found that the regular crews (dwindling in number) would take only the most productive piece-work, and then move on, while the volunteer crew cleaned up the whole crop. They found the transients who worked three days and got drunk did not harvest so much tonnage in a week as did a similar number of high-school boys.

In general most of the volunteer labor came from the smaller cities and towns, located close to the harvest areas. Comparatively few persons went out from cities. The YMCA operated camps for about 2,000 boys; other agencies, for another 1,000. Perhaps 3,000 boys went out individually to farms and worked all summer. The rest of the labor came from the smaller communities.

Urban Schools Are Called Upon

The State Bureau of Agricultural Education saw that for 1943 this source of labor would not be sufficient. City schools must be encouraged to become a reservoir of vacation farm labor, particularly for that period of August thru October, when the largest number of workers is needed.

Contacts were made with the superintendents of schools in the metropolitan areas, with a potential source of 90,000 high school juniors and seniors. Results were not entirely favorable. Some of these administrators had already had unpleasant experiences, such as recruiting hundreds of volunteers, only to find that a few were needed, or getting a group ready to work for a farmer who failed to show up or even telephone an explanation. Nevertheless, they offered to cooperate.

In the meantime, the bureau had launched publication of a 110-page teacher booklet entitled *Farm Victory Service*. Its purpose was to give the city high-school student a picture of the importance of vacation farm labor as a wartime service, some idea of how plants grow, of how pests injure fruit and vegetables, of harvest methods, hazards of farm work, and employer-employee relationships.

teaching aids, including 19 film strips and color slide series on crop harvesting (a total of about 600 pictures were taken right in the harvest areas for these series); and 48 "job description" sheets, each telling how to do some seasonal labor job such as how to pick tomatoes, thin apricots, pick up prunes, top and load sugar beets, or knock walnuts.

This material and the hundreds of references contained in the appendix of *Farm Victory Service* make up the subject matter for the course of study in what is being called "Farm Victory Service" courses. The method of offering this instruction is not uniform. Some city schools expect to teach this course one hour a day during the spring semester. Other schools plan to give an intensive course of instruction during home-room, social science, biological science or orientation periods. Others plan a series of assemblies, with pictures and speakers. It is hoped that in this manner "Farm Victory Service" will be taught to 75,000 to 100,000 persons of employable age.

Of course, this is only part of the problem—perhaps the small part. City parents and school administrators are loath to urge students to go into crop-harvesting jobs until they know the living conditions, means of supervision, rate of pay, type and steadiness of labor, and other factors.

The conditions which must be met by farmers and agricultural communities if they expect to secure the services of city school students were outlined last October in a letter from the Chief of the State Bureau of Agricultural Education to the presidents of the principal farmer organizations in the state. These conditions were summarized as follows:

"1. Every city youngster able to work will be offered a job next summer in a commercial, service, or industrial occupation where he can live at home. Therefore, in order to get him to work in farm harvesting, there must be more than merely 'offering him a job.'

"2. Because every city youngster will have work opportunities at home, it is necessary to offer him before the close of school, farm vacation work at a known rate of pay, known hours and weeks of work, etc.

"3. Most schools close in June, while the harvest labor peak does not begin until around August 1. If city youngsters are to be used in 1943, some plan must be found in the farming industry as a whole to utilize them from the time school is out until school takes up again. Otherwise they will find work at home, which they will not leave to go crop harvesting. Another alternative would be to continue schools until crop harvest peaks occur.

"4. Some organized program must therefore be developed to sign up the youngsters for the entire season, and then move them from apricots to peaches, peaches to apples or tomatoes, etc.

"5. Some organized program must be set up to care for the transportation, housing, and social supervision of these children. During this last year, about 3,000 young people were in organized farm-harvest camps. This is said to be about the limit of the physical facilities of any volunteer social agency such as the YMCA. On the other hand, there are thousands of city high-school teachers well qualified to supervise student help during summer months if some organized means can be found to employ such teachers.

"6. Finally, there must be an extensive program of farmer education. The farmer is going to have to face the hard facts that he is going to have to harvest his perishable crops with women and children—whether he likes it or not. He must recognize the fact that no city youngster will *have* to work in farm harvesting, and that he is not doing the city youngster a favor by offering him a job. He must realize that if he asks the city school people to sign up volunteer workers, he is morally obligated to hire them (the situation this year was very discouraging in this connection). He must recognize the fact that this is inexperienced help, that he must patiently show them how, and stay with them as they work."

Hundreds of copies of this letter were requested by school administrators, county USDA War Boards, United States Employment Service offices, and many other agencies.

The various phases of this problem must be understood in their separate parts. They are about as follows:

1. Training city students. The bureau has taken the leadership in this program, provided teaching materials, and encouraged city schools to offer instruction.

2. Recruiting and placing students from high schools adjacent to harvest areas (not requiring overnight accommodations). Vocational agricultural teachers in California have done an outstanding job and probably will continue to do so. They saved the crops in 1942. They will be the biggest factor in saving the 1943 production of perishable farm commodities.

3. Recruiting, transporting, housing, and supervising city youth in harvest areas, where camp accommodations are necessary, is the function which still needs greatest attention. At the time of preparing this material, it seemed probable that legislation would be presented before the California state legislature, in session at that time, providing for state supervision of seasonal farm labor. Such a plan would go a long way to meet the most serious unsolved need.

Thus, you have the California plan for the training of emergency farm labor. We have limited this discussion largely to "training" because that is the important service vocational agriculture can render. The placement and supervision of perhaps 100,000 volunteer workers from big cities and small towns is a job for a state or Federal agency, with which the vocational agriculture service will be glad to work.

Program of Tracy Hunsecker—Star Farmer for Southern Region

SUCCESSFULLY solving challenging farm problems while developing his supervised farming program into an established progressive farm business gave Tracy Hunsecker the necessary "evidence of proof" to obtain the Star Farmer Award for the Southern Region.

Tracy, 20-year-old son of a merchant of Broken Arrow, Oklahoma, enrolled in vocational agriculture and joined the ranks of the F.F.A. in 1937. Manifesting an unusual interest in agriculture, he early envisioned the great possibilities of a farming future for himself. Reared in a community in which livestock farming predominated, he acquired a desire to become a producer of livestock. His purchase of a Shorthorn calf during his first school year marked the beginning of Tracy's career as a breeder of fine Shorthorn cattle.

Tracy's father, in possession of an 80-acre farm of eroded, low-fertility soil, was not satisfied with the cash rental basis on which it was operated. Noting the intense interest of his son in agriculture, he purchased an additional 200 acres, combined them with the original 80 acres, and turned the management of this new 280-acre farm over to his son in 1938. When Tracy assumed the management of this farm, there was one small barn, two A-type hog houses, a small poultry house, a tenant house without modern conveniences, and depleted land caused by a poor cropping system.

The expansion of his productive enterprises and improvement projects started when Tracy took charge of this farm. During his three years of vocational agriculture he carried 10 projects in beef cattle, swine, and poultry production, resulting in a total labor income of $1,772.90.

He has continued these projects as enterprises on his farm since his graduation from high school. The labor income from his three-year out-of-school program amounted to $7,437.88. At the present time he possesses 50 percent ownership in the following: 92 head of beef cattle, two show steers, four feeder steers, 21 shoats, three sows, one boar, 100 chicks, 18 acres sorgo, 25 acres alfalfa, 25 acres of cotton, and all farm land and equipment. Tracy participates 50 percent in all increases of cattle and in half of all profits after expenses are paid. His father provides all the finances for the operation of the farm, while Tracy provides all labor and lives on the farm in the capacity of sole manager. Thru his efficient management, including conservation practices, proper crop rotation, and good livestock-crop balance, the farm is rapidly returning to a productive state.

Tracy is a very active member of the F.F.A. He has served on many committees and has been president of his local chapter. During the year 1940-41 he was vice-president of the Oklahoma Association. On many occasions he represented the F.F.A. on radio programs and at civic club meetings. He has been a consistent showman at local, district, and state fairs, where he has received high placings with his entries of steers and poultry.

Early evidences of his co-operative spirit were manifested when he assumed important responsibilities in the Broken Arrow and neighboring chapters of the F.F.A. He aided the Tulsa County Breeders Association in conducting a poultry show and the Northeast Oklahoma Breeders Association in purchasing outstanding Shorthorns for herd improvement. He is now a director of the American Shorthorn Breeders Association and vice-president of the Eastern Oklahoma Shorthorn Breeders Association.

Tracy is truly an established farmer. Recently married and now settled in a very attractive remodeled home on the

Supervised Practice

C. L. ANGERER

The Place of Goals and Standards of Production in Developing Programs of Supervised Farming

GEORGE P. DEYOE, Teacher Education, Michigan State College*

EFFICIENCY in producing farm commodities has always been an important consideration, and it is especially significant at the present time. In developing programs of supervised farming, it is desirable to encourage each student to formulate goals of attainment which indicate the recognition of factors associated with productive efficiency for each of the farm enterprises included in his program. Such goals are of value in the following ways:

1. Appropriate goals of attainment of the type indicated challenge each student to achieve on progressively higher levels. For example, "beating his previous record" in pounds of pork raised per litter at 56 days of age or in bushels of corn per acre becomes a powerful motivating influence for becoming progressively more proficient in conducting these enterprises.

2. In the current Food-for-Freedom Program, with quantitative goals of production for certain essential food products, increased production per unit (as implied in the goals set) will aid materially in achieving the desired increases.

3. In formulating these goals of production appropriate for given enterprises (under the conditions on a given farm), each student (under the guidance of the teacher) is stimulated to make an intensive study of the criteria of productive efficiency and of acceptable levels of attainment under various conditions. Too often, he has a limited concept of what he should achieve under his conditions and with the facilities available.

4. The formulation of goals of this type leads logically to such a question as "What do I need to be able to do, or what will I need to learn in order to reach these goals?" In considering this question, typical students will give responses such as: "I will need to learn how to take better care of my sow at farrowing time," "I need to be able to plan and feed better rations," and other similar statements that imply objectives in terms of abilities to be developed if the desired goal is to be reached. Thus, specific objectives emerge which are of value to the student and to the teacher in planning an instructional program of a functional nature.

5. Thru setting goals of the type under consideration, the student is motivated to plan and keep accurate and useful records, because he realizes their value in showing his actual accomplishments and determining his relative success in achieving his goals.

6. If properly interpreted, the degree to which these goals are achieved is suggestive of the extent to which a given student has acquired certain farming abilities. Thus, goals function in helping the student to evaluate his own progress or growth and determine places where emphasis is needed in successive years if achievement on progressively higher levels is to be attained.

Standards and Goals Are Important for All Groups in Vocational Agriculture

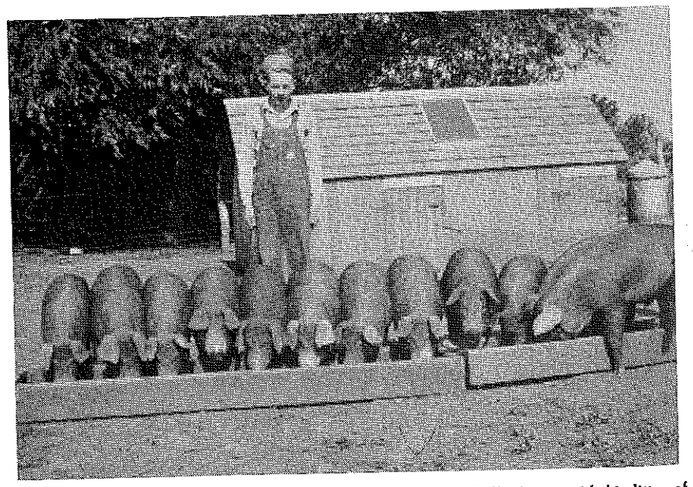
The preceding statements apply to persons in young-farmer and adult-farmer classes, as well as to persons in the day-school classes. For the out-of-school groups, in courses which deal with productive enterprises, the discussion in one of the early meetings might be focused upon the problem of productive efficiency for the enterprise under consideration. Thus, in a course in milk production, the question might be raised, "How efficient are we as milk producers?" This would lead to an analysis of what constitute valid criteria of productive efficiency, such as annual butterfat production per cow, calving efficiency of the herd, etc. This discussion might lead to a consideration of appropriate standards, as discussed later in this article. Following this, farmers might be challenged to set appropriate goals of production for their herds. This, in turn, would lead to an over-all analysis of what abilities each farmer must develop in order to reach his goals and what the class might study in succeeding lessons which would contribute to the development of these abilities.

Similar procedures would be appropriate in classes for day-school groups after the boys have selected their programs of supervised farming. It appears desirable to emphasize that certain parts of this discussion and analysis could be reconsidered in each succeeding year and thus aid teachers and students in determining what abilities in each enterprise might be developed further than in the preceding year, if the students are to become progressively more proficient.

Types of Goals Appropriate for Various Enterprises

Goals of production for each person should be formulated by him in terms appropriate for a given farm enterprise *under the conditions in which he operates*. The following criteria are indicative of productive efficiency for some of the common enterprises represented in the supervised farming programs of day-school students and persons in young-farmer and adult-farmer classes. (The ones in italics are considered to be especially significant.)

1. Swine. Number of pigs farrowed per litter, number of pigs per litter raised to weaning age, *weight of litter at 56 days*, pounds of pork per sow at a definite age of the litter (such as 180 days), days required for reaching a specified market weight, and feed per 100 pounds (or per pound) of gain from weaning to some standard weight (such as 200 pounds).



Bob Ostheimer, a student in vocational agriculture at Iowa Falls, Iowa, with his litter of 12 pigs, which weighed 516 lbs. at 56 days of age. Litter weight at 56 days has been found to be a good criterion of productive efficiency, and the litter shown has made an ex-

2. Dairy Cattle: *Annual butterfat production per cow* (frequently expressed in terms of a 305-day mature equivalent), calving efficiency (or reproductive rate) of the herd based on live calves per year from cows of reproductive age, cumulative production records on a "lifetime" basis for individual cows.

3. Chickens. Percentage mortality of chicks during a specified period, age of broilers at a specified market weight, *annual egg production per hen*, egg-laying percentages in months of high egg prices, percentage mortality in laying flock, percentage hatchability of eggs.

4. Sheep. *Pounds of lamb credit per 100 pounds of ewe*†, average weight of fleece, lambing percentages (usually computed on the basis of lambs raised to weaning age), proportion of wool in the high market grades, age of lambs at specified market weight, proportion of lambs in high market grades.

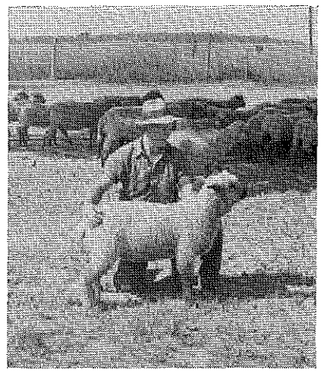
5. Beef steers. *Average gain per day during feeding period*, feed per 100 pounds (or per pound) of gain, proportion of animals in high market grades.

6. Corn. *Bushels per acre*, percentage of corn in high market grades.

7. Beans. *Bushels per acre*, percentage "pick."

8. Potatoes. *Bushels per acre*, percentage grading U. S. No. 1.

It is to be noted that the above criteria of productive efficiency are in terms of non-financial units. For each enterprise it is also possible to set up financial types of criteria, such as net profit from the project, cost of production per unit, and labor return per hour. However, in the materials which follow, the latter types are not discussed, altho it is recognized by the writer that they have merit in addition to the non-financial types. It is important to note that the non-financial types of criteria are associated with financial returns, but they are not dependent on specific price relationships and market conditions at a given time, and hence they are more useful than the financial criteria in measuring progress from year to year.



Irvin Offill, Williamston, Michigan, former student of vocational agriculture, with the breeding flock and lambs which he owns in partnership. The flock of 34 ewes had lambing percentages of 176 and 161 in 1941 and 1942, respectively. Furthermore, the lambs made fast gains and graded high when marketed

The Use of Standards Is Implied

Before a group or an individual formulates a goal of the type discussed, it will be desirable to consider the question "What is an acceptable production level for conditions on our farms (or on my farm)?" Thus, the use of "standards" is implied. The word "standards" as used here refers to established measurements of extent, quantity, or quality which are helpful in evaluating efficiency of production. For the purposes here considered, however, a standard should not be considered as a single point of reference in the sense that we have a standard bushel or a standard yard. For example, it would not be very helpful to set a yield of 50 bushels per acre as a standard uniformly applicable under all conditions, even tho this might represent a community average, because this would be unreasonably high for some persons under some conditions, and it would be much too low for other persons under other conditions, even within the same community. However, it might be possible for a class to agree upon a minimum standard and to arrive at other points along a scaled standard which would serve (1) as a guide in formulating goals of productive efficiency and (2) as a measuring stick for evaluating actual progress toward goals and for appraising the level of productive efficiency actually attained.

For the time being, at least, it seems desirable for each local group to formulate its own scaled standards for given enterprises by utilizing data from various available sources. For example, since annual butterfat production per cow is an important criterion of productive efficiency in a dairy herd, state and national averages for all cows kept for milk purposes are useful in developing standards for measuring progress from year to year. However, for many herds at least, these would be too low if used directly even as minimum standards; hence, the lower end of a scaled standard might be set on a level at least 25 percent above these averages. In formulating other points on a scaled standard, it is also desirable to utilize data showing herd production under favorable conditions. Consequently, state and national averages for the Dairy Herd-Improvement Association are helpful.

It is well, too, for points at the high end of the scale, to include records that represent accomplishments of top-notch dairymen. Data from records of production kept by students in vocational agriculture should also be utilized in formulating this standard, as well as data from various other sources which indicate actual accomplishments of the types represented in the efficiency factors for the dairy enterprise.

Data from all possible sources, as suggested above, should be investigated in building scaled standards for use in given departments. However, *records from projects in vocational agriculture, when available, constitute an important source of data which should not be overlooked.* Data, such as litter weights at 56 days, percentage mortality in chicks, lambing percentages, and the like, should be included as part of the records in vocational agriculture. As such data are accumulated, it is important to compile and analyze the figures for use in developing standards and for additional purposes related to bringing about continued improvements in productive efficiency.

Some Data Helpful in Developing Standards

In various departments of vocational agriculture data have been collected which might be used in formulating standards of the type under discussion. In some cases these data are sufficiently extensive to provide the principal basis for such standards. A few examples will illustrate.

In 1942 at Iowa Falls, Iowa, under the direction of C. A. Bundy, Teacher of Vocational Agriculture, data were collected on litter weights at 56 days, number of pigs weaned, weight per pig at 56 days, etc., for swine projects. These records were kept on a total of 73 litters raised by students in vocational agriculture. As shown in Table I, the writer used these data for developing scaled standards which are illustrative of some of the possibilities for using available data for this purpose. Standards are shown for weights of litters at 56 days, weight per pig in litter at 56 days, and number of pigs in litter at 56 days. The scaled standards shown are intended to indicate one type of mathematical approach which might be used in formulating standards from available data. (As mentioned previously, additional points on this standard might be provided from data available from other sources, altho in this case the data from local sources might be considered adequate.)

Once a group has formulated such scaled standards, each student should be guided in utilizing them in setting his own goals. After considering several factors (such as his own experience, his ac-

(Continued on page 192)

TABLE I

Some Suggested Standards Based on Data for Litters at Iowa Falls, Iowa

Points on Scaled Standard	Wt. of Litter at 56 days*	Av. Wt. per Pig in Litter at 56 days*	No. Pigs in Litter at 56 days*
Highest	516 lbs.	51.0 lbs.	12.0 pigs
Average of the highest one-fourth	375	44.2	9.2
Over-all average	244	36.9	6.6
Average of the lowest one-fourth	144	28.7	4.7
Lowest	80	21	2

*Columns are independent of each other; i. e., litters were ranked anew before computations were made for each column.

Farmer Classes

E. R. ALEXANDER

W. H. MARTIN

Will We Keep Pace With Adult Education?

W. A. SMITH, Teacher Education, Cornell University

W. A. Smith

ADULT education as a recognized movement in American education may be considered as having reached a mid-adolescent stage. This is suggested by its age. The year 1926 is generally referred to as marking its birth and acceptance in the organized program of education. But in addition to the fact that it is now some 16 years of age, there is other evidence of adolescent characteristics. It is undergoing "growing pains" and encountering new problems, the solution of which promises to have considerable bearing upon its future. This seems especially true in vocational education.

An Emerging Pattern

A brief review of the development of adult education in vocational agriculture is not amiss at this point. While education for adults in vocational agriculture preceded the adult education movement by several years and while it should be recognized that the early leaders in vocational agriculture realized that work with adults should have a large place in the program of the teacher, many of us will recall how in our efforts to get agricultural instruction underway in a community we took the natural and most readily established path to service and recognition. That path led into the high school, where pupils were already enrolled and organized for school purposes under jurisdiction of an established institution. We saw our immediate task as one of bringing into an established program a new opportunity for such students as might profit most by what we had to offer; namely, preparation for farming. This task loomed large, and we seemed to have little time or effort left for anything else in spite of the fact that the challenge of service to the adult farmer was as implicit in the enabling regulations governing vocational agriculture at that time as it is today. Then, too, if here and there a teacher found a little extra time outside of his work with his all-day classes, there was always some service within the school to be performed, a home-room to supervise, an athletic team to coach, or a science class to be taught.

As new teachers came into service, this was the pattern they saw being followed. Major emphasis was placed on the in-school groups and on assistance in connection with the secondary school program. Now and then a teacher with more than usual vision or energy, or perhaps with more favorable opportunity or administrative backing, began to organize instruction for adult groups. One such successful experience invariably led to repetition of that experience, and gradually there has developed a sense of the responsibility in vocational education in agriculture for service to those who are engaged, as well as those planning to engage, in the occupation of farming.

New Emphasis

This picture of the development of adult education in vocational agriculture varies in rate and probably in process in different sections of the country. In many of our communities service to adults is looked upon still as an *extra*, something to take on if there is time and energy left from doing other things in the secondary school with preadolescents. The future gives promise of calling for considerable change in this outlook.

The present emergency is providing a very great stimulus to adult education of all kinds. Americanization classes flourish in times such as these. Adult classes for all kinds of emergency needs have been organized with remarkable response. It is gradually dawning upon us that there is no limit to opportunity for rendering educational service to a person except his willingness and desire to avail himself of that service. There is little reason to believe that demands for such service will suddenly cease when the present emergency is over.

Teacher Preparation

Will we keep pace? To do so requires teachers with *preparation* for adult education. When prepared, teachers must have *time* to devote to this part of their program of service in the community. These are two of the more pressing problems on the horizon. Regarding the latter, we should profit from present experience in the emergency effort. I refer to the practice now being followed of looking to others for assistance in carrying on instruction. A teacher of agriculture confronted with the need for organizing classes in machinery repair, poultry and egg production, milk production, swine management and production, production and preservation of food for the family, and all the other emphases now so important in our fight for freedom, faces a well-nigh impossible task if he expects to organize, administer, teach, and supervise all such classes in his community. After all, there is a limit to human endurance.

Fortunately, we are becoming aware of the fact that we don't have to do the total job alone. There are persons in every community with abilities to be called upon for particular purposes. They may be mechanists, dealers in farm equipment, bankers, successful farmers, even other teachers. Each will need the help of the trained teacher at many points—organization of subject matter, selection and use of materials of instruction, procedures in teaching, and evaluation of progress being some particular instances. The vocational teacher always should have the major responsibility for organization of courses and classes, and for administrative detail. Such a plan seems entirely consistent with desired outcomes in adult education; namely, developing potential leadership in the community and putting it to work in the interests of community betterment.

Even with the assistance of others in maintaining a program of adult instruction, the teacher of agriculture must have time to devote to his supervisory and administrative responsibilities. We must demonstrate such need and be prepared to take full advantage of any reduction in time required to perform activities less vocational in nature. If we are to keep pace with adult education, we must look forward to a future in which education of out-of-school groups in agriculture will continue to grow in need. The present situation provides us with opportunity to demonstrate that service and to establish patterns for the future.

Teacher Needs Help

Teacher preparation has lagged in its efforts to prepare teachers for their responsibilities in adult education. Teachers have been expected to "grow into" their responsibilities for instruction of out-of-school groups very much on their own after getting on the job. This policy, or lack of policy, does not seem to fit into the picture of expansion of adult education and the place which vocational agriculture can and should occupy in that program. If we are to premise that the vocational agriculture program in a community is to keep pace with adult education, there follows an obligation to enable prospective teachers to visualize their responsibilities and to obtain preparation to meet them.

History of Agricultural Education

(Continued from page 185)

Research in Agricultural Education, Research Committee, Agriculture Section, American Vocational Association

Early in 1930 a research committee was organized by the agricultural section of the American Vocational Association. The research specialist in the agricultural education service, Federal Board for Vocational Education, was made a member ex officio of this committee. The committee originally attempted to carry on studies; gradually, however, this phase of its activity was dropped, and the committee became an advisory and stimulative body.

Each year committee members have been granted time on the program of the annual convention of the American Vocational Association, and for several years a special research section has been scheduled to meet previous to the opening of the American Vocational Association convention.

American Vocational Association

A small group of state leaders in vocational education in agriculture who were members of the National Society for the Promotion of Industrial Education took the initiative in setting forth the needs for Federal assistance for the program of vocational education in agriculture. These leaders met with other members of the organization at Staten Island, New York, in 1913 and at other times. After the 1913 meeting a group of the members made a tour of Massachusetts and visited several schools which had agricultural education programs in operation. These activities led to the inclusion of appropriations for vocational education in agriculture in the Smith-Hughes Act of 1917.

Livestock Judging Contests

American Royal Livestock Show

W. S. Taylor, now of the University of Kentucky, who was a member of the Executive Committee of the American Vocational Association representing agriculture, requested the chairman of the committee he appointed to arrange a national contest in general livestock to meet him at Kansas City to discuss with the Kansas City Chamber of Commerce, the American Royal Show, and the livestock breed associations the possibility of scheduling a contest of vocational agriculture students at the American Royal Show.

On May 22, 1926, the committee recommended that the invitation of the American Royal officials be accepted to put on a vocational agriculture contest and program at Kansas City November 15 and 16.

On June 5, 1926, Mr. Lane wrote a memorandum to J. C. Wright, Director, Federal Board for Vocational Education, in which he said:

Since * * * the officials of the American Royal Livestock Show at Kansas City welcome * * * the opportunity of providing a national vocational livestock-judging contest and program this year, the members of my committee, consisting of J. E. Hill, Illinois; H. O. Sampson, New Jersey; H. C. Fetterolf, Pennsylvania; and V. H. Kivlin, Wisconsin; and state supervisors of agriculture in about 22 states are unanimous in accepting the offer of the American Royal.

Home Project Teaching

At the final Biennial Graduate School of Education, operated under the auspices of the Association of American Land-grant Colleges and Experiment Stations, held at Massachusetts State College in 1916, Dr. Charters, then Professor of Education at the University of Illinois, discussed "problem methods of teaching." He visited home farms in towns near Amherst and saw the "school and home-farm co-operation" concept in action. On these trips he talked with teachers, pupils, parents, and the State Supervisor of Vocational Agricultural Education; studied project plans; examined records; and observed teaching on local farms. As he boarded the train at the end of his visit, Dr. Charters turned back halfway down the steps of his car, and said to the writer: "It seems to me that the project method is the problem method raised to the nth power."

Trends in Vocational Education in Agriculture

The histories of agricultural education from the several states, summaries of which are included in Chapter 2, show that present vocational agriculture programs have developed from the experiences and aspirations of public school administrators, teachers, and patrons in this field of education. These summaries show that there was a surprising amount of activity in agricultural teaching, both in elementary and secondary schools, in many states previous to 1917.

It is probable that mention of the teaching of agriculture in the elementary grades was omitted in some of the state histories. However, the records show that in 17 states such teaching has been mandatory in the elementary grades of rural schools. These mandatory provisions were most frequently found in the Southern and North Central Regions. In addition, agriculture was taught in the elementary grades of 26 other states previous to 1917. The experience of the states with the teaching of agriculture in elementary grades has often been unsuccessful because teachers lacked agricultural background or technical training or both, but the fact that attempts were made to provide instruction in agriculture in elementary schools shows that the importance of such instruction was realized. Nor should it be assumed that all of this teaching was unsuccessful.

Previous to 1917, 23 states made grants in aid to high schools for the teaching of agriculture. In addition, agriculture was taught in some high schools of 16 other states. In some of these 16 states, state aid may have been granted but the histories do not show it. In approximately four-fifths of the states, agriculture was taught in the high schools before the Vocational Education Act of 1917. In all of the states of the North Central Region and nearly all of the states of the North Atlantic and Southern Regions, the teaching of agriculture in high schools had begun previous to that date.

Conclusion

Wartime conditions make it improbable that this history will be printed in the near future; hence this attempt to give you a preview of it. In addition, Dr. Stimson will contribute to the *Agricultural Education Magazine* an article entitled "Agricultural Career Education in the United States at Dirt Farmer Levels, 1621-1942, Topical Chronological Key." Both my presentation and Dr. Stimson's article, it is hoped, will keep alive the very great interest in this publication.

In these days, when we must look at the present and future with scarcely a fleeting glance at the past, we do not listen to historians with patience. Sometimes I have felt that this historical project is one of the casualties incident to war. However, I am comforted by the thought that this history will be of great help to future prospective teachers of vocational agriculture. It will give them the background of vocational agriculture teaching. Moreover, as I study the lessons of the past, the experience of one state reinforcing the experiences of other states, I see in this history the guideposts for the postwar development of vocational agriculture.

Helping With the Farm Labor Problem

L. T. Clark, Teacher, Olney, Illinois

OUR Department of Vocational Agriculture and the Future Farmer chapter last year began a program to help in solving the farm labor shortage. A committee was organized consisting of the farm adviser, the chairman of the County War Board, superintendent of the high school, county superintendent of schools, representative of the United States Employment Office, vocational agriculture teacher, and the president and the secretary of the Future Farmers.

A plan of action was devised so as to enable schools to continue on the normal schedule and also to permit boys to be available for farm labor.

Needs Studied

A survey questionnaire and follow-up blanks were prepared. Fifty-six boys in the school who thought that they would be available for part-time labor were surveyed. The amount of farm experience, the special skills, the availability, and the wage expected were found. These boys were excused from school if their absence was excused by the instructor. Twenty placements were made for farmers. There were not so many calls as had been expected.

A conference of members of the County War Board, U. S. Employment officials, and school representatives has already been held regarding the 1943 farm labor demand. Some boys have been allowed to carry all subjects during one-half day, with the understanding that they are to attend school the full day when it is not absolutely necessary for them to be at home. These arrangements have proved very successful. While there are not many calls for labor during the winter months, seven boys have been placed.

Present plans are to survey the student body and locate all available farm labor. The questionnaires will be summarized and the students classified as to their experience, age, and availability.

Often by the time the farmer can get his request to the school and we can locate an available boy, it is too late because of weather changes or other unforeseen conditions. To help take care of this situation, the Future Farmer Committee will have a boy in each community to act as contact man between the students and the farmers. These boys will know when and where threshing, haying, baling, etc. are being done and what boys will likely be available. They will be closer to the jobs and will be in a position to get the labor and employer together.

A training program for town boys and girls will be instituted should circumstances, as viewed by the advisory committee, seem to warrant it.—From the *Fan Mill*

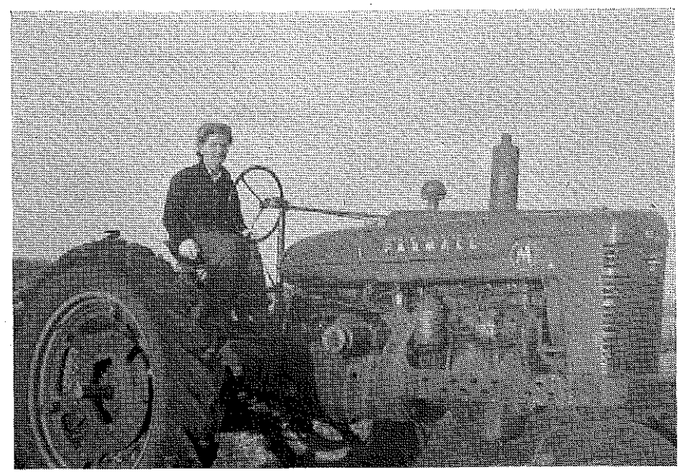
Farm Mechanics

L. B. POLLOM

Teaching Women to Maintain and Operate Farm Machinery

ALLEN C. WEBER, Teacher, Marshall, Minnesota

THE two most important present-day farm problems are to increase the efficiency of labor and to keep farm machinery in serviceable condition. OSYA courses are a long step toward the solution of farm machinery problems. Since it will be necessary for many women to replace men as farm-machine operators, it was decided to devote one rural war production course in the Marshall, Minnesota, community to increasing the efficiency and mechanical ability of these women.



The women were given lessons in operating tractors

Fifteen women enrolled for the course, and 14 of them completed the full 36 hours of instruction. Most of the students were farm girls, but a few town girls who expressed willingness to work in the fields next summer were included. The instructor was a local farm-implement mechanic of considerable ability, altho he had had no previous teaching experience.

Outline of Course

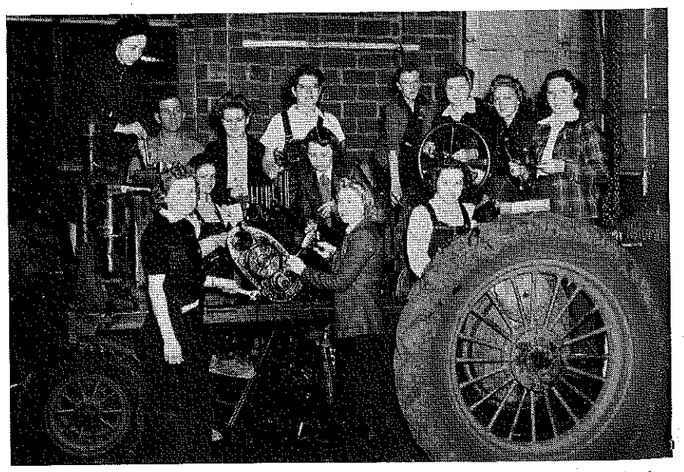
The course was outlined at the first meeting with the help of the students. Emphasis was placed on the care, operation, and minor repair of tractors and other farm machines. Number tags were attached to various parts of a tractor, and students were given a check sheet and asked to match the numbers with the list of parts named on the sheet. The various parts were discussed and classified in groups, such as fuel system and transmission system. The remaining 11 meetings of three hours each were planned to include the following units:

1. The power unit. Demonstration of working parts
2. Practice in tractor operation
3. The fuel system
4. The ignition system
5. Transmission and cooling systems.
6. Oiling and upkeep
7. Tillage implements
8. Planting implements
9. Hay tools
10. Harvesting machinery

In addition to the 12 regular meetings two afternoons were spent in actual field operations on farms. These meetings followed the third lesson, which was devoted to handling tractors in the yard outside the implement shop where the regular meetings were held.

The order in which the material was presented could obviously be improved. However, when the course opened in late October, suitable weather for field work was nearly over, and it was necessary for us to take advantage of what suitable weather remained.

Farmers who witnessed the type of work done were surprised at the ability of the group. Many had been skeptical of the possibility that women could operate farm machinery in a satisfactory manner. A complete record of results will not be available until next season, but several girls reported doing some field work at home during the course, and one girl who had no previous experience was hired to plow for a farmer short of help.



The women learn to make minor adjustments and otherwise maintain tractor and other farm machines

The Place of Goals and Standards

(Continued from page 189)

complishments of the previous year, his facilities, the age of sows, the quality of breeding stock, the number of litters kept together, and his own willingness to adopt new practices) a given boy might decide on a goal for litter weight at 56 days some place between the average litter and the best one-fourth. Specifically, he might set his goal at 325 pounds. He could set additional goals for weight per pig at 56 days, number of pigs per litter at 56 days, etc., in a similar fashion.

Data in Table II represent a summary for a period of five years of records for butterfat production kept by the Junior D.H.I.A., under the direction of J. F. Wilkinson, Teacher of Vocational Agriculture, Oshkosh, Wisconsin.

These data are helpful for developing an over-all scaled standard for these students and also for developing year-by-year standards for herds in which testing is continued in successive years.

An Example of Goal Setting by a Group of Students

In Table III data are shown for lambing records for two successive years for sheep projects at Williamston, Michigan. (These projects include flocks in which boys have part ownership and flocks in improvement projects, as well as flocks in which boys have full ownership.) Under the direction of E. A. Lightfoot, teacher of vocational agriculture, these boys kept lambing records beginning in 1941, as summarized in the first three columns. Following this, goals were set for 1942, as shown in the middle column. The accomplishments in 1942 are summarized in the three columns at the right.

It seems desirable to point out that each student should be encouraged to set his goals anew for each succeeding production cycle in a given project. Naturally, he will be able to do this more accurately after he has carried thru at least one such cycle; but, even so, there is merit to having him set such a goal (under the guidance of the teacher) when he first undertakes a given enterprise. Usually, up to a certain point, his goals would be set on progressively higher levels. However, if he takes into account various factors in his operations, there may be years for which he recognizes the need for lowering his goals. For example, in Table III, Irvin O., who achieved a goal of 176 percent lamb crop in 1941, set 175 percent as his goal in 1942. Due to an increased proportion of aged ewes in his flock at present, it may be the better part of wisdom for him to lower his goal slightly for 1943.

While these boys and their instructor had not set up a definite standard of the scaled type previously discussed, they did keep in mind certain standards of achievement when they set their goals for the second year. For example, they considered that the lowest acceptable point in such a standard was 100 percent lamb crop (which is approximately the average for Michigan), and the highest point was 175 percent (approximately the highest accomplishment in the group in 1941). By further use of the data accumulated, it should now be possible for them to formulate a scale with in-between points based on their previous achievements and possibly on data from other sources.

TABLE II

Data for Successive Years of Testing in Junior D.H.I.A., Oshkosh, Wisconsin

Years of Continuous Testing	Lowest	Average	Best Third	Highest
One year of testing (42 herds)	150.0 lbs.	242.0 lbs.	311.5 lbs.	357.0 lbs.
Two years of testing (30 herds)	179.5	273.5	333.0	398.0
Three or four years (43 herds)	207.0	309.5	358.0	411.0

TABLE III

An Example of Goal Setting, Together With Lambing Records for 1941 and 1942 at Williamston, Michigan

Name	1941			Goals Set for 1942	1942		
	No. Ewes	No. Lambs*	Lambing Percentage		No. Ewes	No. Lambs*	Lambing Percentage
Wilson A.	20	14	70%	100%	14	9	61%
George E.	40	40	100	125	65	70	108
Bill H.	38	30	79	110	40	50	125
C. W. L.	26	39	150	150	27	39	144
Duane T.	56	44	78	116	52	60	115
Bernard S.	50	65	130	160	47	68	144
Bob G.	5	8	160	150	Sold	..	....
Russ M.	8	3	38	125	7	14	200
Irvin O.	34	60	176	175	34	55	161
Grant P.	60	50	83	120	58	58	100
Maurice P.	50	43	87	100	40	50	125
Totals	387	396	....	.....	384	473	.....
Averages			102%	128%**			123%

*No. lambs alive at approximately 8 weeks of age.
**Based on number of ewes for the 1941 crop.

TABLE IV

Butterfat Production in Dairy Herds in Successive Years at Various Levels of Productivity

Level of butterfat production in pounds for						
the first year	160	200	240	280	320	360
Goal for second year	185	220	255	295	330	370
Goal for third year	210	240	270	310	340	380
Goal for fourth year	230	255	285	320	350	390
Goal for fifth year	250	270	300	330	360	400

Possibilities for Devising Standards for Long-time Projects

Using substantiating data from various sources, R. M. Clark of the Michigan supervisory staff and the writer have considered the possibility of developing standards which could serve as a guide for setting goals and evaluating progress in successive years for long-time projects. Such standards should be based on the principle that in a given enterprise on a given farm the level of production at the end of each year should ordinarily show some improvement over the preceding year, at least until quite high levels of efficiency have been reached.

In Table IV such a standard is shown for butterfat production in dairy herds. This table is based on data from such sources as the Junior D.H.I.A. at Oshkosh, Wisconsin, and the Senior D.H.I.A. in Michigan and elsewhere, coupled with the best judgments of the persons mentioned and an extension specialist in dairying. This table shows, for example, that for a herd with an average of 160 pounds of butterfat for the first year, an acceptable goal for the second year might be 185 pounds, while a herd with a level of 360 pounds might be considered to have made a good showing the next year if this were boosted to 370 pounds. This table is intended to be suggestive only, and much remains to be done in developing standards of this type.

Evidences of Growth From Using Standards and Setting Goals

As mentioned at the first part of this article, achievements on progressively higher levels in terms indicative of productive efficiency are helpful as one measure of growth in certain farming abilities on the part of persons who bring about these improvements. The writer has observed that where instructional emphasis is being placed on productive efficiency and goal setting, as discussed in this article, improvements of this type are usually forthcoming. Furthermore, persons who participate reveal by their accomplishments and by their conversations that they are developing an increased understanding of what litters should reasonably be expected to weigh at 56 days, of the feed requirements per pound of pork, and similar criteria of productive efficiency. With all, regardless of the level of their achievements at a given time, they are motivated to strive for still higher accomplishments thru the discovery and utilization of approved practices which make such progress possible. Teaching based upon this point of view results in the development of proficiency in farming.

*Constructive criticisms of these materials as they were developed were offered by the teacher-training and supervisory staffs in Michigan.

†Used in the Wolverine Lamb Production Contest in Michigan. Lamb credit is obtained by multiplying the fleece weights by three, adding the lamb weights at 135 days, and dividing by the weight of the ewes in hundreds of pounds. In some states the weight of lamb per ewe when the lambs are 135 days old (or some other age) is used as a criterion of efficiency.

Studies and Investigations

C. S. ANDERSON

The Teaching of Rural Law by Vocational Teachers in Pennsylvania

SAMUEL F. SIMMONS, Teacher, Maytown, Pennsylvania

A FAMOUS lawyer once said that all laws are based on the principles of common sense. Every sane person should be able to conform his own conduct to the laws deducible from human habit. But, unfortunately, that is not the case. Many of us are likely to make snap judgments, to reach faulty conclusions, or to make generalizations concerning the laws governing our conduct. Unquestionably at least a brief study of the laws which affect our everyday lives should help us to become better citizens, much as a more thoro knowledge of the rules governing a certain athletic game should enable us to play it better. That seems to be a principal reason that rural law is taught to vocational agriculture students in Pennsylvania.

Rural law is a course suggested by the Pennsylvania State Department of Public Instruction to be taught to students enrolled in vocational agriculture, and it is taught in most Pennsylvania high schools that offer vocational agriculture. The purposes of the course are: (1) to enable students to gain some knowledge of law relating to rural problems; (2) to make it possible to save money by making litigation unnecessary.

In May, 1939, at a meeting of the Lancaster County, Pennsylvania, Association of Agricultural Teachers, rural law was the topic of discussion, and it was the unanimous decision of the group that in general teachers urgently needed help in planning and teaching the subject. Following the meeting, the writer decided to attack the problem from a research standpoint and to try to formulate a useful teaching outline for the subject.

A questionnaire was the principal medium used to secure data for the study. Two hundred questionnaires were sent to Pennsylvania teachers of vocational agriculture. One hundred and seven were returned. These provided the basic data for the study. The questionnaire was prepared in the form of a check list with the following major decisions: status of teacher, time devoted to teaching of rural law, methods of teaching rural law, texts used in teaching rural law, references used in teaching rural law, reactions of pupils and teachers to the rural law course, laws and related materials included in teacher's course of study, and suggestions for improvement.

Some of the Findings

Eighty-seven teachers (81.3%) had had experience in teaching rural law for one or more years. Nearly two-thirds of the teachers taught rural law in their schools as a separate course, while about one-third taught the course as a part of other courses. In order of importance they expressed the following reasons for not liking to teach the course; lack of appropriate texts and references, insufficient preparatory training for the teaching of rural law, and difficulty in making the course practical.

A mean of 104 minutes per week was devoted to the teaching of rural law. A great deal of variation existed between teachers as to the amount of time allotted per week. Over one-half of the teachers taught rural law on the half-year, or 18-week, basis, while the course was distributed over the full year by nearly one-fifth of the teachers. The mean total time per year devoted to rural law was 28.7 hours, equivalent to 48 minutes (about one average class period) per week for 36 weeks, or 96 minutes per week for 18 weeks. Over two-thirds of the teachers taught rural law every other year to combined junior-senior classes.

Nearly all teachers of agriculture (95.4%) used the class-discussion method of teaching rural law. Teachers depended more upon the available references than on textbooks. A favorite teaching procedure was one employing class discussion, study of reference material, and an occasional textbook assignment.

In the opinions of 85 teachers the pupils' degrees of enjoyment of the rural law course were expressed as follows: 19, much; 50, somewhat; 15, little; 1, very little or not at all. Nearly two-thirds of the teachers of agriculture thought their pupils disliked rural law principally because of the lack of suitable texts and interesting, practical references. Most teachers felt that the course could be made practical and not too difficult for high school pupils. Only about 60 percent of the teachers liked to teach the course.

Most of the lessons contain a number of actual and a number of hypothetical cases illustrating laws pertinent to the farm and farming. A complete list of references accompanies the set of lessons. The following are sample lessons:

Lesson VII—*Rights of Land of the Farmer*

Study the following cases and give the legal principle involved in each:

Case I. If you owned a home which was located near the line fence of a neighbor, could the neighbor legally build a slaughterhouse on his land near the fence opposite from your house? Why, or why not?

Case II. Suppose the Pennsylvania State Highway Department decided to build a road which would go thru your farm, badly cutting up several of your best fields. Could you stop this action? Why?

Case III. Assume that you own a farm thru which the Donegal Creek flows. Do you legally own the land under the waters of the stream? Explain.

Case IV. The Pennsylvania Power and Light Company was extending its power lines thru a farming community. Lester Williams refused under any circumstances to allow the company to place any poles anywhere on his farm. According to law, could he be forced to grant permission to the company if he were given reasonable compensation?

Case V. During a heavy rain the surface waters from your farm ran thru two of your neighbor's fields with considerable damage to his crops in those fields. Could the neighbor legally collect from you the amount of the damages? What law covers such a situation?

Case VI. A farmer owns a pond which he uses in the winter for harvesting ice. One summer day two boys decide to go swimming in the pond. One boy drowns. The parents of the boy sue the farmer for damages for their son's death on the grounds that the pond was unguarded. Who will win the case?

Case VII. Assume that you have a legal title to a farm in East Donegal Township. How much of the earth above and below the surface rightfully belongs to you as part of the farm? Explain.

Case VIII. Is it lawful for you to fish in a farmer's stream against his wishes?

Case IX. Is it ever unlawful for a farmer to put a fence across a stream flowing thru his farm in order to keep his livestock from going on his neighbor's land? Explain.

References: 3 and 4

Lesson X—*The Farm and Its Boundaries*

Cases for decision:

Case I. Farmer A has a herd of cows which have a habit of breaking thru the fence and damaging Farmer B's crops. Can Farmer B collect for damage? Does the law in Pennsylvania require a farmer to fence his own cattle in or to fence his neighbor's cattle out?

Case II. A broken-down line fence separates the farms of Farmers C and D. Farmer C asks D to share the expenses of putting up a new line fence. Farmer D refuses. Farmer C puts up a new fence himself, then presents a bill for half the cost to D. Is Farmer D legally bound to pay his share of the bill?

Case III. On November 10, 1941, a number of men employed by the Pennsylvania State Highway Department, without consulting Farmer B, put up a snow fence on the farmer's property. When Farmer B saw the fence, he became very angry and proceeded to tear the fence down. Was he within his legal rights to do so?

Questions for study and discussion:

1. In case two neighboring farmers fail to agree on the amount to be paid for erecting line fences, who shall decide this?

2. A large apple tree grows on Farmer A's side of a line fence. Is Farmer B entitled to the apples on the branches that hang on his side of the fence?

3. How far does a farmer's title extend to his land which borders on the highway?

4. Is it within the law for a farmer to pasture his cattle along the highway adjoining his farm?

References: 1, 2, 3, and 4

Lesson XIII—*Pennsylvania Livestock and Dog Laws*

Question for study and discussion:

1. Suppose you had your dairy cows tested for tuberculosis, and one cow showed a definitely positive test. What will happen to this cow? Will she be a total loss to you?

2. A blood test of your herd proves that you have three positive reactors, two cows and a heifer. What will happen to these animals? What reimbursement does an owner get for Bang's disease reactors? How is it determined?

3. Can milk from tuberculosis cows ever be used as animal food?

4. Is it lawful for a packing house to slaughter a crippled steer and sell the

(Continued on page 198)

TABLE I

Topics Included by 87 Teachers in Their Rural Law Courses

Law or Topic	No. of Teachers	Percent of Total
Fence Laws	83	95.4
Livestock Laws	81	93.1
Seed Laws	77	88.5
Dog Laws	73	83.9
Game Laws	72	82.7
Farm Leases	70	80.4
Marketing Laws	70	80.4
Ways of Acquiring a Farm	69	79.3
Farm Deeds	69	79.3
Insurance	68	78.1
Fluid Milk Laws	65	74.7
Contracts and Their Enforcement	58	66.6
Protection of Farmer's Property	55	63.2
Farm Taxes	53	60.9
Right of Land of Farmer	52	60.0
Sales Laws	46	52.8
Law and Litigation Defined	45	51.7
Farm Laborers	44	50.5
Common Carriers	43	49.4
Railroad or Highway Thru Farm	40	45.9
The Farmer Before the Law	38	43.6
Legal Financial Problems	24	27.5
Domestic Relations	21	24.0
Bailment Law	9	10.3
Credit Instruments	3	3.4

Common Spelling and Grammatical Errors Found in Project Record Books

C. S. ANDERSON, Teacher Education, Pennsylvania State College

MR. L. H. LEBO, Regional Vocational Agriculture Adviser for Lebanon and Berks counties, Pennsylvania, examined the agricultural project record books for a number of years from his area for the purpose of discovering and listing the common spelling and grammatical errors found in them. He searched the plans, the agreement, the story, the farm survey page, and, in fact, every place in the record books where boys were required to spell and write. His investigation extended over a period of 10 years and included approximately 2,000 project record books. The following is a list of the 100 most commonly misspelled words reported by Mr. Lebo.

C. S. Anderson

It is significant to note that a great many of the words included in the above list may also be found in the more or less standard lists of most commonly misspelled words in the English language. Espenshade and Gates* in their *List of Words Often Misspelled* include those marked with the asterisk in the Lebo list.

Mr. Lebo mentions the following as the most common errors in grammar found in his study of the agricultural project books:

1. Sentences incomplete.
2. The conjunction "and" used too frequently and improperly.
3. Adjectives used instead of adverbs.
4. Incorrect words used to convey a thought.
5. Repetition of words and of construction.
6. The first word of a sentence not begun with a capital letter.
7. Proper names not begun with capital letters.

*Essentials of English Composition.

1. accommodate*
2. accurate*
3. agreed
4. agriculture
5. approximately
6. assume
7. avoided
8. barrow
9. beginning*
10. calves
11. capon
12. castrate
13. chart
14. cholera
15. cockerel
16. common
17. controlled*
18. cultivator
19. current*
20. diarrhea
21. disinfect
22. equipment*
23. excess
24. experience*
25. farrow
26. fattening
27. fertilizer
28. finance
29. financially*
30. fodder
31. fountain
32. gardening
33. gilt
34. Guernsey
35. Hagerstown loam
36. hatchery
37. heifer
38. herd
39. here
40. high
41. Holstein
42. hybrid
43. intend
44. junior
45. Leghorn
46. liable
47. litter
48. location
49. machine
50. manage
51. management*
52. manure
53. miscellaneous*
54. months
55. morning
56. musty
57. necessary*
58. pasture
59. Percheron
60. phosphorous
61. piece*
62. potato
63. practice*
64. privilege*
65. proceed*
66. properly
67. puffs
68. pumpkin
69. quarters
70. radish
71. range
72. ration
73. receipt*
74. receive*
75. Rhode Island Red
76. roasters
77. roosters
78. rotation
79. roughage
80. secretary
81. self-feeder
82. separate*
83. September
84. several
85. shelter
86. size
87. skim milk
88. sophomore*
89. sprayer
90. staple
91. stover
92. sulphate
93. supervisor
94. taking
95. there*
96. thoroughly
97. threshing
98. tomato
99. vaccinate
100. weeded

Future Farmers of America

A. W. TENNEY

Non-farm Youth in Wartime Food Production

F. W. LATHROP, Specialist in Agricultural Education, Washington, D. C.

F. W. Lathrop

THE farmers of America know from their experience with 400,000 to 500,000 city boys and girls in 1942 that, if well-selected, trained, and supervised, these young people can do very satisfactory farm work. In 1943 they will be essential to a satisfactory food-production program.

We now have about 8,000 teachers of vocational agriculture. Some attention to this group of non-farm young people by teachers of agriculture will result in essential war service. The purpose of this discussion is to suggest how teachers may perform this wartime service.

Plans for 1943

Plans for the 1943 national program for the mobilization of non-farm youth for wartime food production have been completed. On the Federal level, War Manpower Commission Directive No. XVII directs the Secretary of Agriculture to "recruit, place, and transfer workers already engaged in agriculture, and youth, women, and other workers not already engaged in agriculture, in order that agricultural production schedules may be met." The role of the schools is to recruit workers 14 to 18 years of age and to give them thru the Victory Farm Volunteers as much training, both pre-employment and on the job, as possible. It is contemplated that in every state a state committee will act and that in every community or county where non-farm young people participate in food production a *local* committee will act. The chief state school officer of each state will be asked to appoint the state supervisor of agricultural education or some member of his staff as state supervisor of the Victory Farm Volunteers.

The Victory Farm Volunteers may be organized as an integral part of the High-School Victory Corps in every high school where the Victory Corps is found. Members of the Victory Farm Volunteers will be drawn from the general membership and from each of the five divisions of the High-School Victory Corps. In each high school having a department of vocational agriculture and where the Victory Farm Volunteers are organized, it is expected that the teacher of agriculture will act as adviser. As adviser he will be responsible for recruiting, selecting, and training functions. If there is no High-School Victory Corps in a Volunteer group may still be organized.

Discovering Need

Early determination of the need for inexperienced farm labor is essential to a good training program. The eager prospective young farm worker wants to know as soon as possible (1) whether he is likely to be employed and (2) what farming area will be in need of his services. If, in the case of individual placement, he can make a tentative or final arrangement with some farmer for the following summer, his training program can be pointed up to very definite objectives. Thus the time he devotes to preparation for farm work will be more effectively used. It is essential that previous to training a group of prospective workers for a given area the general need for their services be established. Definite placements should be arranged as far ahead of the time of employment as possible. Placements should be made thru the County Extension Service.

Two kinds of workers will need training, (1) those who are needed for specialized short-time jobs, often harvesting jobs, and (2) those who are needed for general farm work.

The specialized job group is essential to the wartime effort because its members supplement the attempts of producers to increase or maintain production to meet wartime needs. The work of this group will often result in saving crops.

Need for Training

Many of these specialized jobs require little training. Potato harvesting is an example. For the most part, skills in potato harvesting will be developed on the job. However, discussion of such matters as selecting varieties, grading potatoes, controlling potato diseases and insects, operating potato harvesting machinery, and storing potatoes, supplemented by field activities and observations will afford some skill training and will greatly increase the intelligent interest in the job.

A local program, if based on the need for emergency labor in one or two short-time farming operations like harvesting potatoes, would require very little training. Such a program would offer no challenge to young workers who would like to spend most of the summer in wartime food production. Consequently, it is desirable that advisers of Victory Farm Volunteer units urge their members to seek employment, working thru the county war boards in a farming area which offers a summer-long succession of farming activities. Preparation for these activities would include training for a relatively large number of specialized farm jobs and would require a substantia training program.

The second group of workers, those who will do general farm work, calls for more varied training than the specialized job workers. Probably it will be possible to include in the training program only a part of the skills they will need. A large part of their skill training will be training on the job.

Many of these general farm workers will work as individuals rather than as groups and will live on the farms where they work. These youth will have to adjust themselves to living on farms. They need to understand the conditions under which they will have to work, the attitude of farmers toward inexperienced farm workers, how rural people think and live, and many other related problems, for this group adjustment to farm life will be more important than training in farm skills. The training program for general farm workers should be much more extensive and detailed than for specialized job workers.

Community Committees

The communities which were most successful in the use of non-farm young people in 1942 had strong local committees. On these committees all the groups concerned with this program were represented. Two groups in particular should always be represented in a committee of this sort: the schools and the local Agricultural Extension Agency. The teacher of vocational agriculture is the logical person to represent the schools on the local committee. As a member of such a committee, he not only has an advisory function but also has several operating functions, as will be described below.

The first duty of a local committee is to determine the need for non-farm youth in wartime food production in the community. The local representatives of the U. S. Department of Agriculture have the primary responsibility for such a study, but in many cases these representatives will need the assistance of the teacher of vocational agriculture.

The Place of the Agricultural Teacher

The teacher of vocational agriculture should take the initiative, in co-operation with the principal of the high school, in the recruiting of non-farm young persons to become members of the High-School Victory Corps. The teacher of agriculture should make a very careful presentation of this whole matter before the student body of the high school, and in some cases he may be asked to visit other high schools for the same purpose. The experience of 1942 is that unless some one makes a careful presentation, high-school students will enroll in very small numbers.

Selecting Trainees

When high school students enroll for wartime service, they should not immediately be made Victory Volunteers. Some of them who are obviously unfit should be eliminated. The training activities for the group will show that others are not suited for this kind of war service. It may be that when the time comes for placement, a few others will not qualify. A teacher's job is to recruit as many volunteers as possible and then select the fit.

Training

The training of Victory Farm Volunteers should primarily be thru activities. The recruits should know as early as possible the neighborhood in which they are to be employed, so that they may make some study of this neighborhood from the point of view of its farming and may determine in general what kinds of jobs they will be called upon to do. Some skill training will be possible, but it is expected that most of the skills will have to be learned on the job. The important thing to give prospective farm workers is orientation. These young workers should know what the problems of a farmer are, they should get the farm point of view on food production, they should understand the conditions under which they are about to work, and they should become acquainted with farmers. It is also desirable that they should have some instruction on farm safety precautions and certain health problems which they will meet as farm workers. A part of the training may well be to harden the workers physically so that their breaking-in period will be less difficult and shorter.

At their last meeting in Kansas City the Future Farmers of America selected as one of their activities for 1943, co-operation with the Victory Farm Volunteers in their training. In many communities it is hoped that the members of the Future Farmers of America chapter will invite non-farm boys to their homes for the purpose of giving them a taste of farm life and perhaps some skill training.

Instructional Materials

Suggestions for a training program are to be issued by the Office of Education. Altho these suggestions are intended for high schools which do not have teachers of agriculture, some of the suggestions may be helpful to teachers of agriculture. In some states like Ohio and California training content is being developed.

The Extension Service of the U. S. Department of Agriculture will be responsible for determining what farmers need non-farm workers. In every county where non-farm workers are used the plan is for the Extension people to employ an Assistant County Agent, whose duty will be to determine where young people are to be placed and to visit farmers during the summer months for the purpose of improving the farmer-employee relationship. In some communities the local committee may desire to have the teacher of agriculture engage in these activities. In some states special workers will be employed by the State Board for Vocational Education who will assist in the placement and in the supervision of farmer-employee relationships.

It is understood that teachers of agriculture have responsibility for on-the-job training in cases where the farmer and the employee need such services.

War Conditions Require Changes in Program

G. R. BROWN, Teacher, Pearl City, Illinois

ONE of the main purposes of a part-time school has been to bridge the period following high-school graduation and establishment in an occupation. The continuance of a part-time school for the out-of-school youth presents a somewhat different problem from usual. The young-farmer class aids boys without high-school education to find their places in our social and economic life. In my community, as in many others, boys who had not normally found jobs at time of graduation or who did not attend high school were "marking time" for a period. These boys were the ones interested in part-time work. Such boys are not now available for young-farmer classes, for they are either in the armed forces or are employed in defense work. Attendance for part-time school classes must consist of young men who are employed on farms or who are farming for themselves.

Pearl City is a rural town near the Illinois-Wisconsin line with a population of 400, serving a rural area of four townships. The farming industry is largely one of livestock production. The only factory requiring labor from the town and community is a milk-processing plant. Two ordnance plants within an area of 30 miles have drained the community of all available labor.

Machinery Course

I have found that interest in young-farmer classes is maintained largely by keeping the boys busy doing something. Last year's course was on farm machinery. The first part of each evening was devoted to instruction in the use, care, and repair of farm machinery and equipment. The members brought corn planters, mowers, and tractors to the school. With the aid of the local implement dealer these machines were checked over for worn and broken parts. Replacements were ordered when needed, and the machines were put into working order so they would be ready for use. This work was done in January and February. During the second part of the series of meetings the boys brought in miscellaneous equipment that needed repair and put it into serviceable condition. Many of the boys constructed electric pig brooders and electric fence controllers.

Following the work in the shop, recreation was provided in the gymnasium. Basketball was popular. A team was organized, and games were played with teams from the surrounding area. Eighteen class meetings were held this past year with a good attendance. The regular attendance I feel has been due to the fact that the boys were busy with their hands as well as their minds.

Survey Shows Needed Changes

In conducting a survey this summer I have found the boys who ordinarily are eligible for part-time school are considerably reduced in number. The town boys and those who were not interested in a high-school education have secured defense jobs. The largest percentage of the boys who are available are between the ages of 18 and 30 and are either established in farming or assisting on some farm. I believe that the same conditions exist in other communities as in my own; that is, during the past two years the number of young men going into farming has been considerably on the decrease.

In my survey this summer I found that these young men are vitally interested in feeding problems. They realize that to increase livestock production the best feeding practices must be followed. They realize the importance of economical feeding.

Group Discussions Planned

The group this year is undertaking something entirely different from what has been undertaken in the past. In place of manual work the meetings will be largely group discussions. In order to provide some actual physical work, milk testing and the mixing of protein supplements and mineral mixtures will be included in the program. A tour will also be held to create interest. Tours offer an opportunity for the boys to see what the rest are doing and provide motivation for better work on their part. I will be interested in finding out if meetings of this nature appeal to the young group to the extent that the courses did requiring physical labor, The group this year is busy producing materials vital to the war needs, and they want to know the best feeding practices and methods to aid them in getting maximum production.

Boys Help With Organization

A council of five boys will be responsible for securing the membership and assisting in the work of conducting the meetings. Committees will be appointed to handle such functions as basketball games, recreation periods, and tours.

The average age of the group this year will be higher. Interests will be more in common, since they are already established in the business of farming.

Prefers Young-Farmer Title

I prefer to call my meetings young-farmers' meetings rather than part-time school meetings. This winter my meetings will be for young men engaged or assisting in farming. The young men attending this year are those just getting started or those who have been farming but a few years. Ages range from 18 to 32. Calling these gatherings a young-farmers' meeting rather than a part-time school seems to create a better feeling. I have found that most boys seem to feel that the word school indicates formal procedure, which they wish to avoid.

I find that the young men, until they reach an age of 35 or thereabouts, prefer meetings where the group attending are of the same age level. Members of older groups do not care to participate in physical exercise to the extent that a young group does.

Editorial Comment

(Continued from page 183)

New Business Manager

W. F. Stewart

AT THE Toledo meeting of the A. V.A., Dr. W. F. Stewart, Professor of Agricultural Education, Ohio State University, resigned as business manager of the *Agricultural Education Magazine*. Mr. G. F. Ekstrom, of the University of Minnesota, succeeds Dr. Stewart.

Dr. Stewart has given long and valuable service to the magazine. He was one of the founders and has been one of its staunch supports thru the years. He saw it grow from a few hundred subscribers to more than 8,000. Dr. Stewart's strong belief in the magazine as an instrument for professional improvement of teachers stimulated him to give many years of unselfish service to its development. Agricultural teachers and leaders thruout America are appreciative of his fine record of service.

G. F. Ekstrom

Dr. Ekstrom is well qualified to succeed Dr. Stewart in this important undertaking. He taught vocational education in the high schools of Iowa and served as Supervisor of Agricultural Education in that state prior to going into teacher education work at the University of Minnesota in 1938. Dr. Ekstrom received his Ph.D. degree under the guidance of Dr. Stewart at Ohio State University in 1938. He is a frequent contributor to the magazine and has been the representative from the North Central Region on the Editing-Managing Board since 1937.

New Constitution

At the annual meeting of the A.V.A. in Toledo in December a new constitution was adopted to govern the Editing-Managing Board of the *Agricultural Education Magazine*. The new constitution will appear on the editorial page or in the professional section of the magazine next month.

Teaching Rural Law

(Continued from page 195)

meat to the public?

5. Is it within the law for a farmer to vaccinate his own poultry flock for pox?

6. Is it lawful to do custom caponizing, or is that a veterinarian's duty?

7. What is the state regulation in reference to livestock on the highway?

8. A stray dog entered upon a farmer's property and destroyed 15 pullets about ready to lay. The farmer identified the dog as one belonging to a man in town. value of the pullets, and from whom?

9. Would it be lawful for you to keep a dog without a license, assuming you kept him tied at all times?

10. If you saw a stray dog chasing your cows in the pasture, would it be legal for you to shoot this dog, assuming that the dog is licensed?

11. Suppose the farmers of East Donegal Township have been suffering a large amount of damage by dogs to poultry flocks and livestock. What could they do as a group to get rid of dogs from the township?

References: 1, 2, and 9

Lesson XVI—*Landlord and Tenant*

The relation of the landlord and the tenant is generally established by means of a contract. The landlord agrees to give exclusive possession of certain farm land, buildings, and equipment to another party, called a tenant, for a specified consideration, called rent. The contract is commonly referred to as a lease. *Study of Lease Forms*—Distribute copies of "Farm Tenancy and Lease Forms," circular 151, School of Agriculture and Experiment Station, State College, Pennsylvania. Study the cash rent and share rent lease forms, keeping in mind the importance of length of tenure, need for changes in lease forms, importance of written contracts, and reasons for dissatisfaction between landlord and tenant.

Cases Involving Landlord and Tenant:

Case I. David Brubaker leased a farm for two years. Soon after occupying the farm, he built a modern brooder house in a field near the barn. Later he decided to move to another farm. The landlord refused to allow Brubaker to move the brooder house, stating that it had become part of the real estate and could not be taken away. Who is in the right, and why?

Case II. Paul Wagner leased a farm from Joe Dennis on the crop-share basis, with the oral understanding that Wagner shall operate it for at least two years. After about one year's residence Wagner received a notice from the landlord asking him to vacate within 90 days. Wagner refused to leave, stating that the oral agreement had been made for a two-year lease. Who will win the case if taken to court? Why?

Case III. John Smith rented a farm from George Wilson. Smith was dissatisfied with the heating system in the house and, on several occasions, asked the landlord to change it. The landlord kept putting him off. Smith later bought and installed a new hot water heating system on his own initiative. Two years later Wilson sold the farm, and Smith was forced to move. Smith began tearing out the heating system he had bought, but Wilson said he had no right to do it and sued for damages. Who will win the case, and why?

Case IV. James Watson rents a farm on the crop-share basis. His lease had been renewed each year on April 1. On January 1, 1941, his landlord gives him notice to vacate on April 1, 1941. Watson claims title to one-half of 20 acres of wheat and 15 acres of barley he had sown the previous fall, not knowing that his tenancy would expire. Will the courts grant Watson the right to his claim of wheat and barley? References: 2, 3, 4, and Circular 152, mentioned above.

A very complete list of references for the rural law course accompanies the set of lessons.

F.F.A. Chapter Grows Poultry and Buys Bonds

R. J. Woodin, Teacher,
Hilliards, Ohio

HILLIARDS chapter of Future Farmers of America raised money to buy a $100 war bond by raising 200 chickens.

Last spring when Secretary of Agriculture Claude Wickard asked farmers for an increase in poultry production along with other farm products, the boys saw an opportunity to help in the agricultural war effort by raising chickens to buy a war bond.

Two hundred and fifty Barred Rock cockerels were bought in late April. For five weeks they were kept in an improvised brooder house made by partitioning off a corner of the farm shop building at Hilliards High School. During the school days boys in the vocational agriculture classes took care of feeding, watering, and cleaning. An electric brooder made by Jack Clellan, a member of the farm shop class, made brooding easy. Ninety-seven percent of the chicks were raised to five weeks of age, when they were distributed to the 36 boys in the chapter. Each member raised from six to eight chicks. Each member agreed to return half the birds he raised to the chapter in the fall.

The boys decided to packer dress their poultry and sell them on the Columbus market. Seventy birds were sold to a Supermarket in Grandview, one of the better residential districts of Columbus. The remaining birds were marketed by individual boys.

Thursday, September 24, members of the vocational agriculture classes learned to kill and pick poultry by actually packer dressing 70 birds. A profit of over $80 was realized on the project, which was more than enough to buy the bond for which the boys had planned.

M. D. Hartsook, superintendent of schools at Hilliards, gave a prize to the boy who raised the three heaviest birds. Albert Price won with three cockerels which averaged 7.3 pounds each.

F. F. A. War Activities

Excerpt from letter by L. R. Davies, State Supervisor of Agricultural Education, to all Colorado F.F.A. Chapters:

"At this time many of our members are wondering how they may help win the war. Not only can we help with farm gardens, larger projects, and farm-machinery repair, but checking on fifth-column activities and sabotage also is one of the most important jobs in civil protection.

"Prevention of sabotage is most important. Bridges, tunnels, irrigation and power dams, electric power lines, hay and grain fields, lumber (yards), and forests are some of the places to be watched. Such work should be well organized and co-ordinated with authorized civil defense and law enforcement officials.

"As good citizens and future rural leaders, I am asking you chapter (members) to act on such a resolution and offer your services to the sheriff and the chairman of the county defense council."

OFFICE OF EDUCATION, WASHINGTON, D. C.

John W. Studebaker—U. S. Commissioner of Education
J. C. Wright—Ass't Commissioner for Vocational Education
W. T. Spanton—Chief, Agricultural Education

Regional Agents: C. H. Lane—North Atlantic; J. H. Pearson—North Central; D. M. Clements—Southern; E. J. Johnson—Pacific

Specialists: W. N. Elam—Special Groups; F. W. Lathrop—Research; W. A. Ross—Subject Matter; H. B. Swanson—Teacher-Training; E. R. Alexander—Part-time and Evening; S. C. Hulslander

d—directors; s—supervisors; t—teacher-trainers; ds—district supervisors; it—itinerant teacher-trainers; rt—research workers; cs—colored supervisors; ct—colored teacher-trainers

ALABAMA

d—J. B. Hobdy, Montgomery
s—R. E. Cammack, Montgomery
rs—J. C. Cannon, Auburn
rs—H. F. Gibson, Auburn
rs—L. L. Sellers, Auburn
rs—C. C. Scarborough, Auburn
rs—T. L. Faulkner, Auburn
t—S. L. Chesnutt, Auburn
t—George T. Sargent, Auburn
t—W. R. Montgomery, Auburn
rt—A. L. Morrison, Auburn

ARIZONA

d—E. D. Ring, Phoenix
s—L. D. Klemmedson, Phoenix
t—R. W. Cline, Tucson
t—J. R. Cullison, Tucson

ARKANSAS

d-s—Fred A. Smith, Little Rock
s—C. R. Wilkey, Little Rock
rs—T. A. White, Monticello
rs—O. J. Seymour, Arkadelphia
rs—J. A. Niven, Russellville
rs—Earl G. Landers, Batesville
t—Keith L. Holloway, Fayetteville
t—Roy W. Roberts, Fayetteville
rt—Henry L. Cochran, Fayetteville
ct—J. C. McAdams, Pine Bluff

CALIFORNIA

d—Walter F. Dexter, Sacramento
d—Julian A. McPhee, San Luis Obispo
s—E. W. Everett, San Luis Obispo
rs—B. R. Denbigh, Los Angeles
rs—Howard F. Chappell, Sacramento
rs—B. J. McMahon, San Luis Obispo
rs—A. G. Rinn, San Luis Obispo
rs—Weir Fetters, San Luis Obispo
rs—Harold O. Wilson, San Luis Obispo
t—S. S. Sutherland, Sacramento
it—George P. Couper, San Luis Obispo
it—J. I. Thompson, San Luis Obispo
rt—C. O. McCorkle, San Luis Obispo

COLORADO

d—H. A. Tiemann, Denver
s—L. R. Davies, Denver
Alfred R. Banger
t—G. A. Schmidt, Fort Collins
rt—Gilbert Bette, Fort Collins

CONNECTICUT

d—A. S. Boynton, Hartford
s—R. L. Hahn, Hartford
t—C. B. Gentry, Storrs

DELAWARE

d-t—R. W. Heim, Newark
s—P. M. Hodgson, Dover

FLORIDA

d—Colin English, Tallahassee
s—J. F. Williams, Jr., Tallahassee
t—E. W. Garris, Gainesville
t—A. W. Tenney, Gainesville
it—H. E. Wood, Gainesville
it—W. T. Lofton, Gainesville
ct—L. A. Marshall, Tallahassee
ct—C. W. Conoly, Tallahassee

GEORGIA

d—M. D. Mobley, Atlanta
s—T. G. Walters, Atlanta
ds—George I. Martin, Tifton
ds—C. M. Reed, Carrolton
ds—J. N. Baker, Swainsboro
ds—J. H. Mitchell, Athens
cs—Alva Tabor, Fort Valley
t—John T. Wheeler, Athens
t—O. C. Aderhold, Athens
t—A. O. Duncan, Athens
t—R. H. Tolbert, Athens

HAWAII

d-s—W. W. Beers, Honolulu, T. H.
s—W. H. Coulter, Honolulu, T. H.
t—F. E. Armstrong, Honolulu, T. H.

IDAHO

d-s—William Kerr, Boise
s—Stanley S. Richardson, Boise
s—Elmer N. Belnap, Idaho Falls
t—H. E. Lattig, Moscow
t—H. A. Winner, Moscow
Carl Hennings, Weiser

ILLINOIS

d—J. E. Hill, Springfield
s—L. C. Cannon, Springfield
s—B. A. Tomlin, Springfield
s—D. G. Daniels, Springfield
t—H. M. Hamlin, Urbana
t—Melvin Henderson, Urbana
t—J. N. Weiss, Urbana
t—H. J. Rucker, Urbana

INDIANA

d—Clement T. Malan, Indianapolis
s—Harry F. Ainsworth, Indianapolis
t—E. C. Lawson, Lafayette
rt—S. S. Cromer, Lafayette
it—K. W. Kiltz, Lafayette
it—H. W. Leonard, Lafayette
it—I. G. Morrison, Lafayette
it—H. B. Taylor, Lafayette
it—W. A. Williams, Lafayette

IOWA

d—F. E. Moore, Des Moines
s—H. T. Hall, Des Moines
s—R. A. Towne, Des Moines
t—Barton Morgan, Ames
t—John B. McClelland, Ames
t—J. A. Starrak, Ames
t—T. E. Sexauer, Ames
t—A. H. Hausrath, Ames

KANSAS

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

KENTUCKY

d-s—R. H. Woods, Frankfort
s—E. P. Hilton, Frankfort
t—Carsie Hammonds, Lexington
it—Watson Armstrong, Lexington
it—W. R. Tabb, Lexington
ct—J. J. Mark, Frankfort

LOUISIANA

d—John E. Coxe, Baton Rouge
s—S. M. Jackson, Baton Rouge
ds—A. Larriviere, Baton Rouge
ds—T. E. Kirklin, Baton Rouge
t—R. L. Davenport, University
t—J. C. Floyd, University
t—C. L. Mondart, University
ct—M. J. Clark, Scotlandville
ct—E. C. Wright, Scotlandville

MAINE

d—Austin Alden, Orono
s-t—Herbert S. Hill, Orono
s-t—Wallace H. Elliott, Orono

MARYLAND

d—John J. Seidel, Baltimore
s-t—H. F. Cotterman, College Park
ct—J. A. Oliver, Princess Anne

MASSACHUSETTS

d—Robert O. Small, Boston
s—John G. Galvin, Boston
t—F. E. Heald, Amherst
t—W. S. Wells, Amherst

MICHIGAN

d—George H. Fern, Lansing
s—Harry E. Nesman, Lansing
s—Luke H. Kelley, Lansing
s—Raymond M. Clark, Lansing
t—H. M. Byram, East Lansing
t—G. P. Deyoe, East Lansing
t—G. C. Cook, East Lansing

MINNESOTA

d—Harry C. Schmid
s—Leo L. Knuti, St. Paul
s—Harry J. Peterson, St. Paul
rs—Felix Nylund, Virginia
t—A. M. Field, St. Paul
t—G. F. Ekstrom, St. Paul

MISSISSIPPI

d—H. E. Mauldin, Jr., Jackson
s—A. P. Fatherree, Jackson
ds—R. H. Fisackerly, Jackson
ds—E. E. Gross, Hattiesburg
t—V. G. Martin, State College
t—N. E. Wilson, State College
t—D. W. Skelton, State College
t—A. E. Strain, State College
rt—H. O. West, State College
it—V. P. Winstead, State College
ct—W. A. Flowers, Alcorn
ct—A. D. Fobbs, Alcorn
ct—Robert Ross, Alcorn

MISSOURI

d—Lloyd W. King, Jefferson City
s—G. A. Woodruff, Jefferson City
s—M. D. Thomas, Jefferson City
s—Joe Duck, Jefferson City
t—Sherman Dickinson, Columbia
t—G. J. Dippold, Columbia

MONTANA

d—Ralph Kenck, Bozeman
s—A. W. Johnson, Bozeman
s—H. R. Rodeberg, Bozeman
t—R. H. Palmer, Bozeman

NEBRASKA

d—Sidney Owen, Lincoln
s—L. D. Clements, Lincoln
s—H. W. Deems, Lincoln
t—H. E. Bradford, Lincoln
t—C. C. Minteer, Lincoln

NEVADA

d-s—R. B. Jeppson, Carson City
t—W. C. Higgins, Reno

NEW HAMPSHIRE

d—Walter M. May, Concord
s-t—Earl H. Little, Concord

NEW JERSEY

d—John A. McCarthy, Trenton
s-t—H. O. Sampson, New Brunswick
s-t—E. V. Bearer, New Brunswick
t—O. E. Kiser, New Brunswick

NEW MEXICO

s—Frank E. Wimberly, State College
t—Carl G. Howard, State College

NEW YORK

d—Oakley Furney, Albany
s—A. K. Getman, Albany
s—W. J. Weaver, Albany
s—R. C. S. Sutliff, Albany
s—J. W. Hatch, Buffalo
t—R. M. Steward, Ithaca
t—E. R. Hoskins, Ithaca
t—W. A. Smith, Ithaca
t—Roy A. Olney, Ithaca

NORTH CAROLINA

d—T. E. Browne, Raleigh
s—Roy H. Thomas, Raleigh
ds—R. J. Peeler, Raleigh
ds—E. N. Meekins, Raleigh
ds—J. M. Osteen, Rockingham
ds—T. H. Stafford, Asheville
ds—A. L. Teachey, Pleasant Garden
ct—S. B. Simmons, Greensboro
t—Leon E. Cook, Raleigh
t—L. O. Armstrong, Raleigh
t—J. K. Coggin, Raleigh

NORTH DAKOTA

d—Edward Erickson, Grand Forks
s-t—Ernest L. DeAlton, Fargo
s-t—Shubel D. Owen, Fargo

OHIO

s—Ralph A. Howard, Columbus
s—W. G. Weiler, Columbus
s—E. O. Bolender, Columbus
t—W. F. Stewart, Columbus
t—H. G. Kenestrick, Columbus
t—G. E. Rhoad, Columbus
rt—Ray Fife, Columbus

OKLAHOMA

d—J. B. Perky, Stillwater
s—Bonnie Nicholson, Stillwater
ds—W. R. Felton, Stillwater
ds—S. M. Crosnoe, Stillwater
ds—Roy Craig, Stillwater
ds—Edd Lemons, Stillwater
t—C. L. Angerer, Stillwater
t—Don M. Orr, Stillwater
t—Chris White, Stillwater
ct—D. C. Jones, Langston

OREGON

d—O. I. Paulson, Salem
s—Earl R. Cooley, Salem
s—Ralph L. Morgan, Salem
Kirby E. Brumfield, Salem
t—H. H. Gibson

PENNSYLVANIA

d—Paul L. Cressman, Harrisburg
s—H. C. Fetterolf, Harrisburg
s—V. A. Martin, Harrisburg
rs—R. C. Lighter, Gettysburg
rs—J. S. Champion, Pittsburgh
rs—A. B. Young, Kittanning
rs—A. V. Townsend, Bedford
rs—E. W. Wood, Towanda
rs—W. J. Tucker, Bellefonte
rs—Norman Rachford, West Chester
rs—J. Rex Haver, Lock Haven
rs—Harry Everett, Bloomsburg
rs—D. L. Crum, Meadville
rs—Harold Park, Carlisle
rs—C. J. Kell, Harrisburg
rs—B. E. Decker, Erie
rs—J. D. Martz, Jr., Indiana
rs—F. C. Bunnell, Brookville
rs—H. E. Newcomer, Scranton
rs—L. H. Lebo, Lebanon
rs—C. D. Carey, Williamsport
rs—E. C. Wiggins, New Castle
rs—A. C. Sproat, Mercer
rs—W. B. Frisbie, Stroudsburg
rs—S. L. Horet, Norristown
rs—Derl Hess, Sunbury
rs—H. W. Steiger, Coudersport
rs—G. F. Dye, Somerset
rs—G. D. Derr, Montrose
rs—T. W. Crittenden, Wellsboro
rs—C. F. H. Wuesthoff, Warren
rs—J. B. Park, Honesdale
rs—R. E. Seamens, Greensburg
rs—T. M. Malin, York
t—Henry S. Bruner, State College
t—William A. Broyles, State College
t—C. S. Anderson, State College
it—Russell B. Dickerson, State College
it—D. C. Sprague, State College

PUERTO RICO

d—Lloyd A. LeZotte, San Juan
s—Nicholas Mendez, San Juan
t—Lorenzo Garcia Hernandez, San Juan
t—Ernesto Vazquez Torres, Mayaguez
ds—Juan Acosta Henriquez, Arecibo
ds—Juan Robles, Cayey
ds—Andres Ramirez, Mayaguez
ds—Samuel Molinary, San Juan

RHODE ISLAND

d-s-t—George H. Baldwin, Providence
t—Everett L. Austin, Kingston

SOUTH CAROLINA

d—J. H. Hope, Columbia
s—Verd Peterson, Columbia
ds—W. C. James, Columbia
ds—W. M. Mahony, Anderson
ds—R. D. Anderson, Walterboro
ds—R. E. Naugher, Loris
t—W. G. Crandall, Clemson
t—W. C. Bowen, Clemson
t—J. B. Monroe, Clemson
ct—J. P. Burgess, Orangeburg
ct—Gabe Buckman, Orangeburg

SOUTH DAKOTA

d—J. F. Hines, Pierre
s—H. E. Urton, Pierre
t—R. R. Bentley, Brookings

TENNESSEE

d—G. E. Freeman, Nashville
ds—G. B. Thackston, Murfreesboro
ds—J. W. Brimm, Jackson
ds—L. A. Carpenter, Knoxville
t—N. E. Fitzgerald, Knoxville
t—J. B. Kirkland, Knoxville
rt—A. J. Paulus, Knoxville
rt—E. B. Knight, Knoxville

TEXAS

d—Robert A. Manire, Austin
s—J. B. Rutland, Austin
ds—O. T. Ryan, Lubbock
ds—C. D. Parker, Kingsville
ds—C. B. Barclay, Commerce
ds—B. C. Davis, Austin
ds—J. B. Payne, Stephenville
ds—R. A. Shaw, Nacogdoches
ds—W. B. Williams, Alpine
ds—T. R. Rhodes, Huntsville
t—Henry Ross, College Station
t—Malcolm Orchard, College Station
rt—W. R. Sherrill, College Station
t—L. V. Halbrooks, College Station
t—J. L. Moses, Huntsville
t—W. E. Driskill, Huntsville
t—S. V. Burks, Kingsville
t—Ray L. Chappelle, Lubbock
it—T. L. Leach, Lubbock
it—P. D. Shackelford, Kingsville
cs—J. C. McAdams, Crockett
cs—Gus Jones, Caldwell
cs—S. E. Palmer, Tyler
cs—E. E. Collons, Texarkana
cs—B. S. Luter, Prairie View
ct—E. M. Norris, Prairie View

UTAH

d—Charles H. Skidmore, Salt Lake City
s—Mark Nichols, Salt Lake City
t—L. R. Humpherys, Logan

VERMONT

d—John E. Nelson, Montpelier
s-t—W. Howard Martin, Burlington
s-t—Charles L. Park, Jr., Burlington

VIRGINIA

d—Dabney S. Lancaster, Richmond
s—D. J. Howard, Richmond
ds—F. B. Cale, Appomattox
ds—T. V. Downing, Ivor
ds—J. O. Hoge, Blacksburg
ds—W. R. Legge, Winchester
ds—J. C. Green, Powhatan, Virginia
rt—Olive A. Salem, Blacksburg
t—Harry W. Sanders, Blacksburg
t—Henry C. Groseclose, Blacksburg
t—E. Y. Noblin, Blacksburg
t—C. E. Richard, Blacksburg
ct—G. W. Owens, Petersburg
ct—J. R. Thomas, Petersburg
ct—A. J. Miller, Petersburg

WASHINGTON

s—J. A. Guitteau, Olympia
t-s—E. M. Webb, Pullman
t-s—Bert L. Brown, Pullman

WEST VIRGINIA

d—W. W. Trent, Charleston
s—John M. Lowe, Charleston
s—H. N. Hansucker, Charleston
t—M. C. Gaar, Morgantown
it—D. W. Parsons, Morgantown
it—A. D. Longhouse, Morgantown

WISCONSIN

d—George P. Hambrecht, Madison
s—Louis M. Sasman, Madison
t—J. A. James, Madison
t—V. E. Kivlin, Madison
t—V. E. Nylin, Platteville
t—J. M. May, River Falls
it—Ivan Fay, Madison
it—Clarence Bonsack, Madison

WYOMING

d-s—Sam Hitchcock, Cheyenne
s—Jack Ruch, Cheyenne