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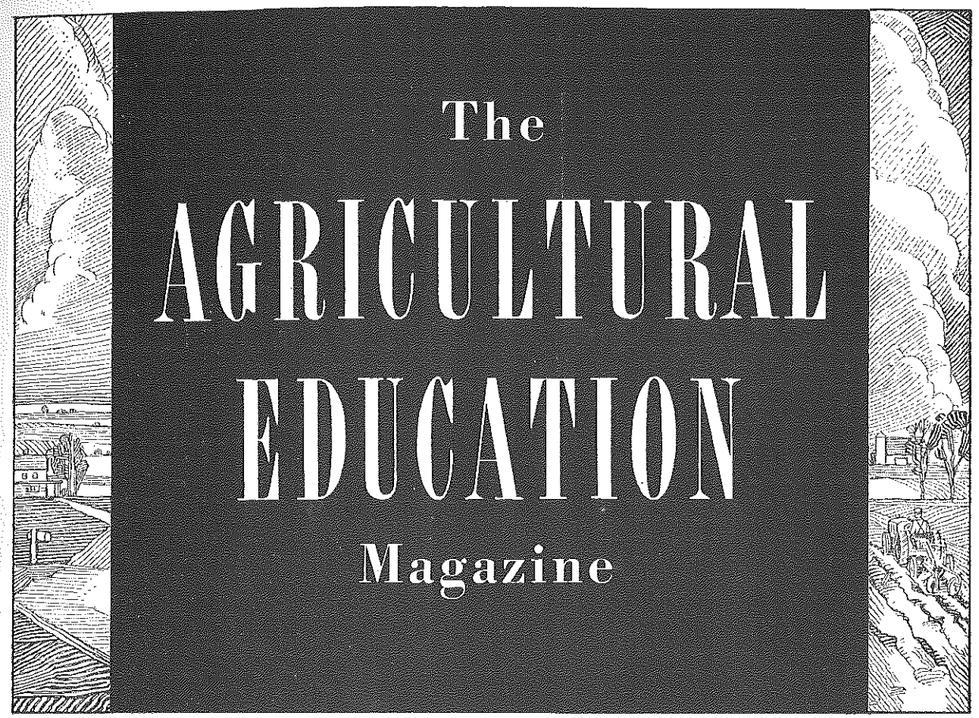

THE FARTHERMOST HILLS

"Come over the plains to the hilltops high,
Come over, come over and rest;
Stay not on the plains where soft zephyrs lie
But come to the heights where the clouds sweep by
And the world-round gales thru the heavens fly,
Come over, come over and rest."—Liberty Hyde Bailey

Agricultural Education Magazine

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Editorial Comment

AMERICAN EDUCATION WEEK 1938

THE program of American Education Week 1938 has just been announced by the National Education Association. This program has been adopted by the three national agencies which sponsor American Education Week—the National Education Association, the United States Office of Education, and the American Legion.

General Theme: *Education for Tomorrow's America*

Sunday, November 6 —Achieving the Golden Rule
Monday, November 7 —Developing Strong Bodies and Able Minds
Tuesday, November 8 —Mastering Skills and Knowledge
Wednesday, November 9—Attaining Values and Standards
Thursday, November 10—Accepting New Civic Responsibilities
Friday, November 11 —Holding Fast to Our Ideals of Freedom
Saturday, November 12—Gaining Security for All

Meeting Needs or Making Records

TIME and again we have heard teachers of vocational agriculture say in substance, "I go home from conferences quite discouraged, having found that my program does not measure up to the things which other teachers are doing" or, "My work compares unfavorably with the activities reported by other instructors thru the state newsletter." Ordinarily these same teachers are among the more successful instructors—at least they are quite zealous to improve their own programs.

Is it possible that we, as teachers, supervisors, and teacher-trainers play up the outstanding rather than the usual situation? For example, do we use the programs of boys with more favorable home situations in setting up standards for projects? The writer has observed situations in which the purchase of a few hundred baby chicks, a gilt, or a purebred heifer has meant more of a sacrifice to a boy and his parents than has the feeding of a carload of baby beeves in another case. Likewise, such situations frequently contribute more to the experience and development of the individual and eventually to the improvement of the farming program than do the projects of students in favorable circumstances.

To carry our query further: Are we inclined to measure the accomplishment of F. F. A. members by the achievement of State and American Farmers? Have we placed undue emphasis upon training for leadership altho there is but little room at the top? Have we been guilty of publicizing large enrollments in adult classes when small groups might be more practical?

Our point is merely that we should be cognizant of the needs of the people with whom we work and that we should develop programs which will meet these needs most effectively. —G. F. Ekstrom, Iowa.

Today's Sermon

A TEXT for today's sermon might well be taken from PRACTICAL METHODS IN TEACHING FARM MECHANICS by Cook and Walker. Such a text would read: "The real objective of the farm mechanics course is: 'To train boys to do the ordinary construction and repair work that needs to be done on the average farm with the tools the average farmer may reasonably be expected to have.' "

The current year's farm mechanics methods class broke this down into three subdivisions. Quoted exactly, these objectives were:

1. To develop mechanical resourcefulness.
2. To establish a home farm shop on every farm.
3. To develop systematic planning and careful workmanship in carrying out the common farm mechanics jobs on the average farm in the community.

They further decided that there were several immediate objectives which should be set up. The accomplishment of these immediate objectives were assumed to mean that, with their fruition, the three subdivisions would automatically reach fulfillment, and further, that the original text quoted in the opening paragraph would also come to pass as it was written. These immediate objectives were:

1. To develop skills.
2. To develop thinking ability.
3. To develop care in the selection and use of tools and materials.
4. To develop proper attitudes.
5. To develop the ideal of a need for a home farm shop.
6. To extend mechanical knowledge.
7. To develop self-confidence in workmanship.

An examination of these leads to a realization that each of them could be further broken down. It is evident also that each of these further break-downs might be subdivided again and again. This points out another fact—that the apparently simple objective which has been taken as a text becomes more and more complex and involved the further it is analyzed. A further thought also obtrudes itself as a natural development of this analysis. This further thought is that the measure of the ultimate attainment of the objective stated in the text varies in direct proportion with the vision of the individual farm mechanics teacher, the extent to which he is capable of making a careful analysis of the original objective, the degree to which he executes the implications of this analysis in actually planning his course of study, and the permanence of the picture thus created as measured in the checking of each student's work against the ideal which has been visualized.

To digress for a moment from this trend of thought, a different approach might prove interesting. Assuming that in actual practice the farm mechanics teacher were required to answer this one question, "If you could do only one thing for each boy in your farm mechanics classes and nothing else, what would this one thing be?" This again may bear a little scrutiny. In attempting to formulate an answer, what other question must be answered first? It seems evident that among these might be the following: Can the best shop teacher in the world anticipate all of the situations all of his students will encounter? If he could, would it be practical to try to train him to meet all of them? If he could anticipate them all and meet them all now, how long would this condition endure before changes in farming, manufacturing, and economics would destroy all or part of the training planned by visualizing all the situations and attempting to train for them all? Should boys be warned to leave some things alone or be urged to try everything?

By way of further digression, a personal incident may be apropos. A number of years ago a spring vacation was given over to putting more bow into the rear springs of a 1927 Chrysler coupe. The reasons for this were several. First, the cost of hiring such a job done was high; second, the rest of the faculty were fishing, and economy required that Izaak Walton be eliminated from consideration; third, this Chrysler was the first deviation from years of Model-T operation; fourth, a false notion of mechanical ability had been engendered by work on previously owned Model-T's which seem to thrive on the most inexpert treatment and continue to knock along in spite of, as well as because of, said tinkering; and lastly, the mechanical information had been obtained that the springs in question were of self-tempering steel.

When half the vacation was over the job was done, at the expense of almost as much dry cleaning needed and skin lost as the original job would have cost, as well as three days' fishing lost forever. But that only begins to paint the picture. Where before the rear end of the car snuggled a little too close to the ground, now behold the resemblance to a sprinter about to start a dash. In fact, the line from front to rear now soared

(Continued on page 78)

A. K. GETMAN **Professional** R. W. GREGORY

Contributions of Leading Americans to Agriculture – Liberty Hyde Bailey

HALSEY B. KNAPP, Director New York State Institute of Applied Agriculture,
Farmingdale, Long Island, New York

"THEY tell me that I am eighty. I am now ready for many new enterprises." So said Liberty Hyde Bailey to me on a May morning a few weeks ago as I sat in his office-workshop.

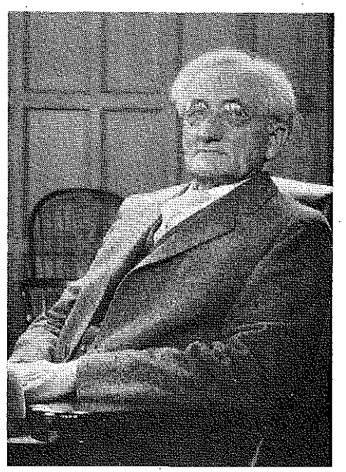
H. B. Knapp

There is no point in an attempt on my part to write this article in an impersonal vein. If that is desired, then I am not the man for the job. To me, Doctor Bailey is not an impersonal subject, and nothing can make him so. He is always "Dean Bailey" and unconsciously I greet him as such, even today. For he was finishing his work as Dean of the New York State College of Agriculture at Cornell as I was completing my undergraduate career at the same institution.

We are told that in the field of vocational education we should start with the things we know, with the aspects of life that are familiar to us. I knew Doctor Bailey first as dean of an institution made great in large measure thru his efforts and adopted by the state during his administration, pointed toward objectives which are still valid.

On one occasion, he called me to his office as president of the student association and said, "What can we do to induce our students to walk about the surrounding countryside? There is more for them there than on the streets of Ithaca. We do not want them to wander away from the land." I have often thought of this statement during the years that have intervened. As I have come to know better the range and scope of Doctor Bailey's interests, I have realized that he gave me in this statement much of his life's creed. He has looked constantly to the natural world for inspiration and for the enunciation of principles and lasting values. I find that in 1913, as he was leaving his post at the College of Agriculture, I wrote of him for an issue of the *Cornell Countryman* as follows:

Doctor Bailey finds and examines



Liberty Hyde Bailey

"He has taught us that there is something more to farm life than the endless round from milking time to milking time; that there are the sky and the hills, the birds and the flowers, and that there is the soil with all its possibilities given us in trust to till, but never to despoil."

I still feel the same way about the matter.

This is not intended to be a biography. If that is desired, it may be found in all its richness in *Who's Who* or *Rus*. But some understanding of his background is necessary in order to appreciate and appraise what Doctor Bailey has done.

Doctor Bailey's experience is a bridge from the old to the new in more ways than one. His father was a pioneer on a farm in southwestern Michigan. He cleared every foot of his land and his son helped him to do it. Wolves ran in packs in the neighborhood; Indians were all about. They were Potawatomis, and friendly toward the white men. Often a glance at the cabin window would disclose several sharply chiseled faces looking intently thru the pane. After an interval the latch would lift—there were no doorknobs—and one or more of the red men would stalk silently into the room and take a place on the floor before the open fire. Others might come and still others, until the circle was completely filled with these sons of the forest. They would sit for from 20 minutes to two hours, often without a word, and then leave as silently as they had come. They were curious, alert, interested in the white man, but well intentioned. The Baileys took guns to the fields every day—for game, not as protection from the Indians.

He gets more curious

The Bailey family liked venison, but did not like raccoon. The Indians were very fond of the latter. The father, having shot a raccoon one day, struck a bargain with an Indian to bring him some venison in exchange at a later date. The venison did not come. One day the father told the Indian who performed the functions of a tribal chieftain of his experience with his red brother. The Chief replied, "He no good Indian; he lie just like white man." The venison was soon delivered.

It was in this setting that Doctor Bailey was brought up. His father was first a shepherd and then a fruit grower. The son ranged the forest for miles on foot and on the bare backs of horses. His first clothes were homemade. His first suit of store clothes made him very much ashamed.

In Doctor Bailey's boyhood there were no agricultural experiment stations, no agricultural colleges or schools, none of the forms of extension service as we know them. "What career was open to a farm boy who wanted more than the farm offered, except politics?" said he, as I sat in his office in May.

Yes, Doctor Bailey has bridged in his experience the old and the new. An experience such as this does something to a man.

Finally Bailey did attend the young Michigan Agricultural College, graduated, took his master's degree, and soon was at work with Doctor Asa Gray, eminent Harvard botanist. Here in the field of plants he found a great and absorbing interest to which he has returned constantly as soon as other responsibilities have permitted, and to which he now gives his full time.

Eugene Davenport, Dean Emeritus of the Illinois College of Agriculture, friend and contemporary of Bailey, states that Bailey was the first real horticulturist in the scientific sense in this country, that most of the others of the period were "little else than broken-down botanists." I believe that this is correct, and that Doctor Bailey exerted a profound influence on the whole field of horticulture in its early days. He probably has done more to give it scientific standards and caliber than any other man. Many have followed in his footsteps, as far as they were able, but he blazed the first trail.

In the allied field of botany, he has made many unique studies and has brought together splendid source materials gathered with his own hands or in collaboration with his devoted and capable daughter, Ethel Zoe Bailey. He has traveled the far corners of the world in his quests. He has been, and is at eighty, no swivel-chair botanist or mere compiler of the findings of others. He goes after what he wants and brings it back alive—or practically so. He has recently given to Cornell University his complete herbarium, consisting of more than 150,000 mounted specimens and a mass of related material, including building and grounds—the Bailey Hortorium.

Part of the gift is a monumental study and classification of the palm. He is now engaged in the collection of rubus, of which he has already more than 15,000 specimens. Only a botanist of attainment can evaluate his great and continuing work in this direction. It is evident at once, however, that it is very great.

All who labor in the agricultural field sense in some degree our debt to Doctor Bailey in the world of agricultural literature. His pen has always been clear and cogent, arresting, interesting, and authentic. He has given us scores of texts and reference books. He has edited many more. Always his influence has been in the direction of opening new areas of thought, of stimulating the exploration of them.

As an administrator of the New York State College of Agriculture at Cornell in those trying days when agriculture was seeking a place at the table of subjects worthy of the attention of scholars, when as a vocation it had little standing, Doctor Bailey made a reputation in itself sufficient for most men. He knew how to deal with both problems and men. Indeed, at times his greatest problems were men of narrow vision and strong prejudices. His achievements in this field gave a lift to the whole program of agricultural education thruout the nation.

Few men possess Doctor Bailey's charm and effectiveness in the field of public address. No one has them in the same form or proportions. Arresting in appearance, unusual in voice and gesture with something of the seer and the mystic about him, these attributes set him off from all other speakers to whom I have ever listened. His following cannot be classified—students, of course, but hard-bitten farmers do not yield to them; in legislative halls, before budgetary bodies, or Grange meetings, or organizations noted for scientific and scholarly attainments, he has held and holds today high place—a compelling advocate.

In 1908 President Theodore Roosevelt called him to the Chairmanship of the American Country Life Commission. This agency made an exhaustive and fundamental study of the contributions and problems of country life as related to the national well-being. Of this work President Roosevelt said, "I regard that as on the whole the most important commission that I have appointed during my term as President, with one exception. I doubt if I should have undertaken to appoint the commission if I had not been able to get Director Bailey for its head, and no man in our country did better work for our country than he did on the commission."

It was at this time that it was hinted that Doctor Bailey desired to be Secretary of Agriculture. He made a public statement:

"I have not been asked.

"I cannot imagine a President who would want me as Secretary.

"I would not accept in any case."

This seemed to be clear, and closed the matter.

"I have never held political office and never wanted to—but once." This one instance, I learned, had to do with a situation which needed changing and which could not be changed otherwise.

Doctor A. R. Mann, student, colleague, friend of Doctor Bailey, writes me thus:

"Doctor Bailey's outstanding contribution to American country life has been in the field of ideas and ideals. Not that his work as an administrator and a scientist lacked anything in practical distinction; in these latter realms his works will long endure as monuments to a great leader in the advancement of knowledge and in the building of a great institution for the dissemination of knowledge. But ideas and ideals—his books are full of them and his lectures and public addresses over a half century have been notable for their stimulating originality and their lofty aims for American agriculture and country life. Whether it be in prose or poetry, his understanding interpretation of nature in countless phases and of the facts of life in the countryside is keen, penetrating, informed, sympathetic, prophetic. In setting before students, teachers and the public new guides and fresh momentum to higher levels of labor and living in the great out-of-doors, I consider Doctor Bailey without a peer."

Yes, Doctor Bailey's greatest work has been as a leader and prophet of agriculture. I have known this since the days when, as an undergraduate, I sat with others about the fireplace in his home on Sunday evenings while he read and talked to us of many things. I liked best his own ideas in poetry and prose. I pay tribute to him for his individualism and his humanism. Primarily his interest has been in, and his concern has been, for people, for men and women. Did I say "has been"? It remains so still. For, as I sat with him in his study on this May morning, I said to him, "What do you consider the greatest need of country life today and in the years immediately ahead?" Almost before I was thru speaking he said, "To develop the personalities of the men on the land. It is *folks* I am interested in."

And then I inquired whether he had some special work for the young worker in the field of agricultural education. He replied, "Assuming that he is well prepared in the technical sense, I name enthusiasm, a devotion not dried out and overawed by too much organization, by wondering what one's superiors are going to say, and what the committee will say or do. A lack of concern for the welfare of the student as a distinct human entity is not compensated by preparation, organization, and mechanical proficiency."

Is such doctrine out of date? I doubt it. I would like to hear it proclaimed from the hilltops and flung to every breeze that caresses the corn tassels.

"Doctor Bailey, of all the things with which you have been concerned, which has given you greatest satisfaction?"

"Every one of them, all have been lots of fun. I would do them all over agian. I have been satisfied with life. Not that I have been satisfied with my achievements; but my life's program, in part accidental—and I would always allow for and accept the accidental phases joyously—has been very satisfying."

"I am eighty, and am now ready for many new enterprises." I know that it is so, for Doctor Bailey came to Long Island on May 31 to spend the whole day seeking a wild blackberry plant which intrigued him.

THE CONTRIBUTIONS OF LEADING AMERICANS TO AGRICULTURE

During the past three years there have appeared in these columns two series of articles of widespread interest. These appeared under the titles, "Contributions of Ten Leading Americans to Education," and "Whither Agricultural Education?" Each series has been reprinted in separate bulletin form for wide distribution thruout the United States. The article appearing on this page under the authorship of H. B. Knapp inaugurates a third series of professional articles under the title, "Contributions of Leading Americans to Agriculture." The series is planned for fifteen issues and is intended to provide a brief analysis of the activities and a summary of the plans and contributions of each individual. The leaders have been chosen from the fields of administration, research, invention, education, and business.—A. K. Getman.

A. M. FIELD

Methods

Second Annual Marketing Day

ERNEST L. DeALTON, Assistant State Supervisor, Fargo, North Dakota

E. L. DeAlton

THE second annual North Dakota Future Farmer livestock marketing day program, held at the Union Stockyards, West Fargo, North Dakota, October 14, 15, and 16, was to a very large extent different from the ordinary livestock show and sale. In fact, it was not a show at all but a livestock marketing day which could justly be called a livestock marketing school.

The primary purpose of the event was to give Future Farmers an opportunity to learn firsthand how livestock is marketed on the commercial market, and

Method of transportation

to do this by offering them an opportunity actually to market their own livestock which they produced as a part of their supervised farm-practice program. With that thought in mind it was plainly evident that the traditional show and sale, as generally thought of, would not serve our purpose, and in making plans for the program those interested considered such questions as:

1. Are we attempting to develop efficient producers and marketers of market livestock, or are we primarily interested in developing exhibitors of show stock?

2. Are we justified in fostering a program that is not true to life, that awards only for the best animals, irrespective of how or by what method they were developed?

3. Should we set up a program that will pay exorbitant and fictitious prices for a few of the best animals and, as a result, set up false standards in the minds of our members?

4. Can we develop a program in which the members may co-operate rather than compete with one another—a program that will be interesting and educationally sound and one in which Future Farmers may learn what the market wants, what determines prices, and how livestock is actually bought and sold, in order that they may become better producers and marketers of livestock?

5. Can we develop a program in which all the members raising livestock may take part, instead of catering primarily to those having the best animals and who, in many cases, were able to have superior animals with which to start?

6. Can we develop a program that will encourage the adoption of approved practices in raising livestock and, at the same time, discourage non-recommended practices?

7. Can we develop a program that will help put over a more efficient supervised farming program among our members and one which will aid in getting them established in farming?

With these questions as a basis for consideration, the plan which was finally developed was naturally different from the traditional show and sale. A few of the outstanding differences were:

1. The animals were not judged and placed in one, two, and three order; but instead they were graded and grouped according to standard U. S. livestock market classifications and grades.

2. Individual animals were not auctioned off with the idea of receiving fictitious prices for a few top animals, but instead buyers were asked to bid on the various groups of animals according to grade and to pay what the market at that time warranted paying for animals of that particular grade.

3. There were no first-prize animals, no champions, no grand champions; but instead there were groups of prime, choice, good, medium, and even common animals, based on U. S. market grades.

4. Individuals producing and marketing animals grading prime or choice were presented with framed certificates of award, which showed the number and the grade of the animals sold.

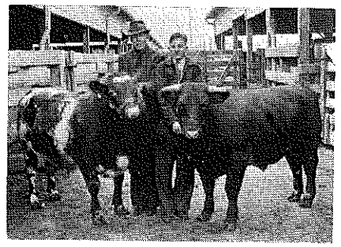
5. The money that would ordinarily have been used for prizes was expended on living expenses and entertainment for the members taking part and to pay for other expenses in connection with the program. In this way, every member taking part received some benefit from the money.

In order to take part in the sale, Future Farmers were required to have had a satisfactory supervised practice program for at least six months and to have been in possession of their animals offered for sale for at least four months, except in the case of bona fide feeding projects, in which case the members were to have owned the animals for at least 60 days prior to the sale.

The livestock was delivered at the Union Stockyards, West Fargo, on or before midnight, Thursday, October 14. The stock was rested during the night and fed early Friday morning, so that by eight o'clock they were rested and in a filled condition when W. O. Frazer, marketing specialist of the Bureau of Agricultural Economics, Washington, D. C., began grading and assembling the entries of hogs according to U. S. market classifications and grades. As the hogs were graded they were placed in different lots, depending on grade, and above each lot was a large sign bearing the name of the respective grades.

Upon completing the grading of hogs, the sheep and cattle were graded and assembled in a similar manner, after which the stock was exhibited for the balance of the day, and until Saturday morning, under their respective market grades.

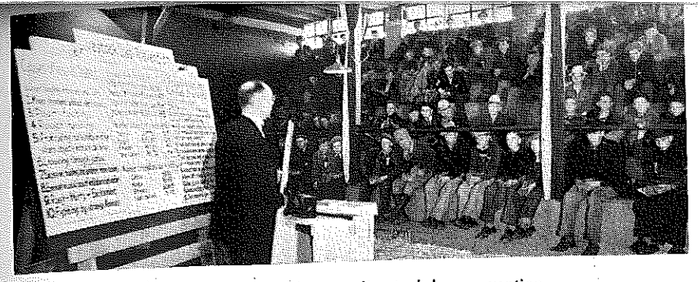
The judging was done in the sales pavilion, and members and visitors were seated on elevated seats. In addition to seeing the livestock graded and assembled according to market classifications, those taking part also heard Mr. Frazer tell why the individual animals were placed in the various grades, and everyone was given an opportunity to ask questions.



Two choice steers

Saturday morning climaxed the program when all entries were offered in open competition to buyers. A committee of three cattle salesmen sold the cattle and a similar committee of sheep salesmen and hog salesmen sold the sheep and hogs. Each lot sold was made up of animals which took the same grade in its market class and each lot under each market class was sold individually. Salesmen asked buyers to bid on each lot separately and to pay a premium for the grade which was justified for killing purposes on that day's market. After all prospective buyers had placed their bids on each lot, the salesmen sold the stock to the highest bidder where the highest bid was considered fully in line with the market or better. Where two prospective buyers entered the same bid, the salesmen permitted these buyers an opportunity to go back into the pens and look over the livestock again and to place another bid. In each case the highest final bid took the lot.

The livestock was handled thruout as commercial livestock is handled daily at the yards, and each Future Farmer was given an opportunity to follow his stock thru the selling processes. He consigned his stock, he was charged the regular



Mr. W. A. Peck discusses livestock loss prevention

fees, his stock was given the customary fill, he saw it graded and assembled with that of his fellow members, he witnessed the salesmen selling to buyers, and consequently buyers competing for various grades. He saw prices determined, he realized the difference in market grades and classes, and saw how the prices received were affected by quality, breeding, and condition.

Featured on the program Friday afternoon, after the grading was completed, was a meat-cutting demonstration by Al Severson, Professor of Animal Husbandry, of the North Dakota Agricultural College. The demonstration was designed to show the differences in grades and cuts of meats from the different grades of livestock, and thus helped show what the market wants and why there is a difference in price between animals of different grades.

Another feature was the grading of a group of hogs by the Future Farmers, which followed a discussion by A. P. Smeby of the Union Stockyards, St. Paul, Minnesota. In doing the grading the members not only decided into what grade they thought individual hogs should go, as the hogs were driven across the area, but they also estimated the weight of each. In doing this work they were assisted by a large chart showing the different grades of live hogs.

"Transporting Livestock to Market" was discussed by W. A. Peck, of the Livestock Prevention Board; and a radio broadcast direct from the salesroom was also an added feature.

A tour of Armour's packing plant at West Fargo, a visit to West Fargo Horse Auction Sale, a banquet, and theater party at Fargo's best theater were additional highlights of the undertaking during the three-day program. While in Fargo the members were housed in the college gymnasium and had their meals at the college cafeteria, except for the noon meals which were served at the Union Stockyards.

The second annual Future Farmer marketing-day program was made possible thru the co-operation of a large number of firms in North Dakota and the northwest which made up the sponsoring committee and the co-operating agencies. Much credit is due L. W. Kube, vice-president and manager of Union Stockyards, West Fargo, for his untiring efforts in making the program a success.

The committee on final arrangements consisted of Mr. Kube; M. H. McDonald, instructor of vocational agriculture, Park River, North Dakota; and Ernest L. DeAlton, assistant state supervisor.

CLASSES		Market Grade
Steers	Class 1, weight 550–900 lbs.	*Heifers and Steers*
		Prime
	Class 2, weight 900 lbs. and up	Choice
		Good
Heifers	Class 1, weight 500–750 lbs.	Medium
		Common
	Class 2, weight 750 lbs. and up	Cutter
		Low cutter
Hogs—Both Sexes		*Barrows and Gilts*
		Prime
	Class 1, lightweights 160–200 lbs.	Choice
		Good
	Class 2, medium weights 200–250 lbs.	Medium
		Common
	Class 3, heavy weights 250–325 lbs.	
Sheep—Both Sexes		
		Prime
	Class 1, lightweights up to 75 lbs.	Choice
		Good
	Class 2, handy weights 75 to 90 lbs.	Medium
		Common
	Class 3, heavies 90 lbs. and up	Culls

The sale and program not only gave the group an opportunity to study marketing firsthand, but it furnished a ready sale for their stock. Looking at it from another point of view it might be considered as a general test of the individual's ability to produce the kind of livestock the market wants and in a way that would return the greatest profit to the individual. The event has helped in interesting boys in having better supervised farming programs, and because of its practicability, should do much to co-ordinate classroom work with the supervised farm program. Likewise it offers an opportunity to develop co-operation among members rather than emphasize competition. We believe we are working in the right direction and next year should see a smoother working program with more and better stock consigned by an increased number of Future Farmers. Our neighboring states of Minnesota, Iowa, and Wisconsin are planning a tri-state sale to be held the fall of 1939 at South St. Paul and they have patterned it very much after the plan discussed in this article.

Teaching Farm Machinery

ARTHUR M. AHALT, Teacher,
Frederick, Maryland

THE teaching of farm machinery is probably one of the most difficult jobs faced by teachers of vocational agriculture. This is true because this subject to be of value absolutely requires practice work.

During my first six years of teaching I used two plans alternately: (1) We took field trips and studied machinery; (2) we brought machinery into the school shop and repaired it. Both of these methods helped the pupils to learn, but both are difficult to operate. The greatest disadvantages of plan number one are: first, to find a machine located near the school that the farmer is not using or that he does not have stored away in an inconvenient place; second, to get transportation; and third, to "hit" favorable weather. Plan number two is very good if you can get a machine when you need it and have the farmer buy the repairs.

In studying farm machinery there are two major objectives that a pupil learns: first, the function of the parts of each machine; and second, the confidence that he has the ability to take a machine apart and reassemble it.

This year I am trying a new plan which I believe is going to surpass either of the above. At the beginning of the school year we purchased an old mower for $5.00. Pupils are assigned to farm-machinery activity in groups of from three to five. The job of each group is to tear the machine down completely, study the parts, and reassemble the machine. Inasmuch as there are three other activities going on in the shop at the same time, the instructor has a limited time to spend with this group. The pupils are given references which

(Continued on page 78)

Supervised Practice

H. H. GIBSON

Why Use Enterprise Budgets?

RUSSELL W. CLINE, Teacher Training,
Tuscon, Arizona

R. W. Cline

TODAY, as never before, we are living in an age when man seeks to better his lot by planning and directing the forces that influence his welfare. Young men who are entering farming thru courses in vocational agriculture have seen this trend and are building their training activities around a planned program of farming for the future. Two major reasons may be cited for this increased interest in estimating and budgeting which are essential prerequisites to intelligent planning.

First, the disastrous results of a policy of *laissez faire* for agriculture; second, improved methods of science and research are producing a wealth of data to use in such planning.

Since the farming program of a beginner in vocational agriculture is small and set up primarily as a learning activity, it is possible to give much attention to the technique of using estimates and budgets in planning the farming program.

Some of the more important ways by which budgets have been used to improve farm practices will be discussed under seven headings. This does not imply that the list is complete.

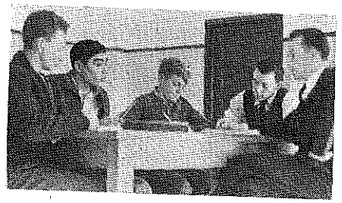
I. A budget gives the pupil a complete overview of his proposed undertaking; its responsibilities and the relationship to other farming enterprises and activities.

It is important that the student begins early to analyze his program in terms of its ultimate economic possibilities. Some of the problems are complex for the beginner. It is true that he will need to accept much from authorities and be content to demonstrate and reason thru to the "why" later as his knowledge and experience increases. The fact remains, however, that the student is facing important decisions in the selection of his first farming activities and needs an understanding of all the factors possible before setting out upon the new venture. The actual preparation of the budget will call for units of study on land, labor, equipment, credit, markets, and supplies of various kinds. Minimum standards and requirements for success will be developed in relation to each of these and such standards measured against the facilities the boy is able to secure. He will acquire some understanding of competition between various regions producing the same and similar farm commodities, and how this operates to control prices.

This is illustrated by a case of the student who was planning a corn enterprise. During his study he found that with the most modern machinery used in the corn belt, an acre of corn could be produced with about eight man hours, whereas the best he could do with his hilly land and poor equipment was about 100 man hours per acre. This discovery prompted him to make a thoro study of the question, "What should be the place of corn in my farming program?"

II. A budget indicates the practices to be followed if the enterprise is to be successful.

This is a very important factor in the success of any enterprise program. Often the new and improved practices are very different from those to which the boy has been accustomed. He must be introduced to the new as soon as possible. Here again he must tentatively accept these upon the recommendation of experiment stations, the teacher, successful students, and farmers in the



J. R. Cullison, Tolleson, Arizona, and some students preparing enterprise budgets

community. Many departments of agriculture have these practices well standardized. The following practices are taken from such a list on potato production. 1. Select land with legume cover crop. 2. Plow in the fall. Set furrow slice on edge. 3. Prepare "open" seed bed. 4. Use certified seed. 5. Use weeder at least three times. 6. Spray potatoes at least eight times.

Of course these standards will vary with each case but once the standard is set up and tentatively accepted by the pupil he has very definite facts upon which to plan operations.

The student may often wish more proof than is readily available, that such practices will pay. This is where the teacher should have appropriate data showing the comparative returns from the superior practices and the poor practices. In the department mentioned above, many first-year pupils were skeptical about spraying as it was not yet a generally accepted practice in the community. The teacher had charted results of experimental work, as well as tests conducted by students in the community, which showed that spraying over a period of years gave a net return of $78 per acre. If, after the evidence had been presented, the prospective grower was still unwilling and unable due to facilities to adopt the practice, he was advised to drop the enterprise from his program. Such a plan enables the pupil to commit himself on every practice listed before proceeding further. The items of the budget thus become his proposed list of practices in abbreviated form.

III. An accurate and complete budget forms the basis for a sound business agreement.

A business agreement, to be of value, must include all essential details involved in the undertaking. When the student approaches his parents or other persons with definite facts as shown in his budget, he usually experiences little difficulty in completing such agreements. At the outset the parents are usually astounded at the amount of expense involved. They are equally skeptical about the high returns which the boy expects to receive. The writer recalls a case where the boy's father thought it an outrage to spend $200 in conducting a chick enterprise. He objected to the price to be paid for the chicks, the amount of feed, the disinfectants, and other costs which he claimed were entirely unnecessary or too high. When a comparison was made of the boy's proposed returns with what his father had been getting from the chick enterprise the following striking differences were found.

	Father's Enterprise	Boy's Enterprise
Percentage of chicks raised.....	60	95
Percentage of pullets culled out.....	25	7
Date pullets began production.....	Dec.	Sept.

When the father learned that such results as the boy had planned were actually being obtained in the community he was ready to give him a chance. It is very doubtful if such an agreement could have been secured with the father had the boy been unable to present detailed accurate facts on his proposal and a personal conviction that he could attain his goals.

IV. The budget provides the essential data necessary for procuring sound credit for the enterprise.

We are just beginning to realize the importance of the whole problem of credit in getting young men established in the business of farming.

Without accurate budgets one cannot appreciate the magnitude of the financial needs of the young farmer of today.

Such problems as procuring credit, establishing a credit base, and using credit wisely, must receive more attention in our farmer-training programs of the future.

The Farm Credit Administration is rendering a splendid service on this problem in providing both funds and educational guidance for a sounder credit program for the future of American agriculture. It is significant that a budget of the proposed farming activities of the borrower is the basis for loans made by this agency. This is also true for loans by banks and private credit agencies.

Thus, the budget lies at the very foundation of the financial structure of an enterprise, because the credit risk can be no sounder than the data upon which the loan is based.

V. The budget provides standards against which the teacher and student may check performance at any time.

Once the items are set up in the budget, the student has a goal on every phase of his activity. This serves as a stimulus and makes a game of his job in which he is striving to beat his own standards. Students refer to the budget often thruout the year to see how they stand on the several items. It is a good check on excessive spending and labor on an enterprise. A case in point is the student who changed his whole dairy ration at the end of the second month because his feed cost was too high.

Another student was proud of his ability to feed his laying flock as well as his ability to estimate his feed bill. His budget called for 4,800 pounds of feed for the first six months. At the end of that period he had less than 50 pounds of the amount on hand. This same student estimated his labor income for the year on his flock within three dollars of the actual return.

VI. The budget supplies data to be used in making a calendar of activities on the farming program.

Such a calendar will enable the student to determine the labor needs on his enterprises and to arrange his program to make the best use of man and horse labor available.

Such facts may seem commonplace to the experienced farmer but it is well for the beginner to consider them in developing a farming program.

VII. Budgeting makes use of farm record data for the improvement of the farm business.

There is great need for more standards and accurate data on all farming operations and economic aspects of the farm's business. While much of these data can be supplied by experiment stations thru studies and summaries of accurate records, there is a great body of the more detailed facts that must come from the records on the specific farms under consideration. No other data can replace facts from this source.

The demand for such data for budgeting purposes has given a new impetus to the whole job of record keeping in schools where budgets have been accurately made and wisely used. The two go together and are a means toward more intelligent decisions on the part of our students.

A body of knowledge may be classified as a science only when the facts may be used for predictive purposes in that field. If the farmer of tomorrow expects the certainty of results experienced by the scientist, he must not only avail himself of the necessary facts but he must also become skillful in using the same in predicting the outcomes of his efforts.

Long-Time Project Program

JAMES M. LOGIE, Teacher,
Bassett, Nebraska

THE most valued phase of my work in vocational agriculture is my long-time project program. The method used in selling it to the boy and his parents and the use made of it are discussed here.

I make it a practice to visit every prospective freshman before school starts. After the usual conversation, including introductions in case the people are new to me, and after I have passed out chewing gum liberally to all the small children in sight, I make the following speech:

"Mr. Jones, I make it a practice to get around and talk to the parents of boys coming into my department about the work and particularly the project programs. I suppose you already know that all boys in this department are required to carry a project. I find, tho, that a great many people do not know what a project is and what it is for and what the boy is supposed to get out of it, so I like to have an understanding before we start.

"I suppose you know we receive funds from the state and federal governments for the partial support of this department. In order to get this money we have to meet certain requirements. One of these is that every boy enrolled in the work carry a project. They have set up these requirements in an effort to make the work really worth while to the farm boys who take it. In making the project a requirement, they are acting on the knowledge that a boy learns best by doing. They were tying up the classroom instruction to something at home so the boy could take what he learns at school and apply it at home and having applied it he really learns it. It created the desire to learn by problems which come up in the management of a project, which the boy had to learn in order to know what to do. It is a sound method of teaching.

"I go further, Mr. Jones. I try to get a boy to choose a project in the kind of stock by which he is most apt to make his living. I like him to start with the idea that he is going into the business permanently. The average boy has a 10 year period from the time he enters high school until he steps out on his own to make his way. If he will start with a little holding of livestock, however small at first, and stay with them, add to them from his earnings if possible and save his increase, he can build quite a little bunch of cattle in the course of that period. I have been at this long enough now to see some results, and it is surprising what can be done. A boy should have at least eight to ten head and I have one boy in mind who now owns over 70 head of stock cattle besides some horses. It means giving the boy a good start in life and usually at no great cost as you know you can grow into a bunch of cattle pretty cheaply, what it would take considerable money to buy outright.

"There is another side to this thing too and that is the experience the boy gets. While he owns his cattle he is going thru the same things a rancher is, only on a small scale. Take the boys that have owned cattle the last few years. feed costs almost prohibitive. They've seen the bottom drop out of the cattle market. They've seen cows worth $17 in the fall and $45 to $50 in the spring. They have had losses from one thing or another and a wonderful chance to learn by experience. When they get ready to start out for themselves, instead of being entirely new at the game, they have ten years of experience behind them. I do not see how that can fail to be a great help to the boy in later life."

By this use of the project and by this method of approach, I find I get the following results:

1. Do the boys great good by getting them started to build up captial for themselves and experience.
2. Sell the project program thoroly to the parents.
3. Sell the department to the parents.
4. Sell yourself to them.

Solving Project Problems

D. R. PURKEY, Teacher,
Old Fort, Ohio

PROJECT ownership is, in my opinion, the solution of the many problems that arise from home projects. I have found that when a boy buys a good gilt or heifer that my part of the push that keeps records and project work up to date is nearly over. This is especially true if the money was borrowed to finance the project till productivity. The boy will do everything in his power to get the most return per dollar's worth of feed, to keep the animal in good health, and to follow instructions given.

Project ownership not only helps in record keeping but in many other ways such as, classroom attention, attitude, and interest. In my animal husbandry class this year the different members own gilts, breeding sheep, beef cattle, dairy cattle, colts, and poultry. It is all purebred stock owned by the boys and registered in the boys' names. Because of this fact we can study any phase of any type of livestock and have at least one boy financially interested in it, which in turn makes other boys in this class more interested and attentive.

Project ownership can also be carried into the crops field. Having the boy own the seed or share of the crop with an agreement in black and white before starting makes a better project.

The above mentioned advantages are not the only ones; a continuation project is taken as a matter of fact, and the financial standing of the student at graduation time will be much better. He will own something that is worth while and from which he may derive an income and take pride in in later years.

I am not bound to win, but I am bound to be true. I am not bound to succeed, but I am bound to live up to what light I have.

I must stand with anybody that stands right and part with him only when he goes wrong.—Abraham Lincoln.

V. G. MARTIN

Farmer Classes

J. B. McCLELLAND

Evening Class as a Means of Accomplishing a Community Program

S. H. FADELY, Instructor,
Racine, Ohio

WHEN I organized my first evening class four years ago, it was not necessary to use a schedule form of community survey procedure to locate the problems in my community that needed immediate attention. They were obvious and still are.

Soil erosion had been going on for years, unchecked and unnoticed; broomsage was regarded as a poor sort of pasture, but costly to eradicate, and made "purty good grazen if kept burned off." Hay was, and still is, being shipped in, to carry the livestock over during long hard winters. There were, of course, farmers here and there who had dug in and were making a go of it.

A comprehensive community survey, including 62 farms, which was made in the fall of 1932, disclosed in detail a more complete and accurate setup of individual farms and community practices. For the most part, the survey and analysis were made by vocational students in the farm management course.

Assisted by the day students who had already set up as one of their chapter objectives "the encouragement of evening class attendance," fifty-two farmers and their wives were present at the first meeting and helped to set up the following tentative program which we later labeled, *"Our Community Plan."* With the exception of a few additional and modified objectives, the plan today is essentially the same as it was when we listed the following major objectives at our first meeting:

We shall attempt to:

I. Develop a balanced program of farming, especially adapted to each individual farm.

II. Encourage farmers to use more legumes in a planned rotation.

III. Increase the number of sheep on the hill farms.

IV. Increase the size of poultry flocks and attempt to increase egg production per hen.

V. Adopt a program of soil improvement by turning hill lands to pasture, using cover crops, and practicing contour farming.

VI. Using lime and phosphorus more liberally in the legume rotation and pastures.

VII. Subscribe for good farm literature.

VIII. Join a farm organization.

IX. Keep records.

With this group of objectives before us on a wall chart and inscribed on our vocational letterheads, with constant newspaper publicity and community fair exhibits and demonstrations, we have so "Sloganized" our community plan that every one in the community, including the students of the grade schools, could pass at least a memory test on the nine-point community plan.

Procedure:

Statement of first and major objective as it was set up in community plan, namely:

We shall attempt to develop a balanced program of farming, especially adapted to each individual farm.

Teaching Objective:

To establish a tentative understanding and appreciation of the significance and influence the number and correlation of the various farm enterprises may have on farm and labor income.

Factors to be considered in showing the relation and influence of the number and correlation of the various farm enterprises in determining farm and labor income:

I —Soil utilization and adaptation.
II. —Kinds of crops grown in a rotation.
III —Livestock program.
IV —Labor
V —Capital.
VI —Markets.
VII —Buildings, fences, and equipment.

Thinking the problem thru in class discussion for conclusions in the relationship of *Soil Utilization and Adaptation* to the other factors and the balanced program as a whole.

Class Procedure:

"I have heard it said by several farmers that they never made any money on beef cattle. At the same time they admitted they never made any money on their farm until they started keeping beef cattle.

How do you justify such a statement?

Why do you suppose so many automobile businesses are located in Detroit?

Could Henry Ford, if he desired, establish a factory on top of the Allegheny mountains?

The point is, many farmers are able, financially, to do many things that are not profitable and may be excused on the ground that they can afford whatever suits their fancy.

Poor farmers generally have poor cows. But, possibly, they are poor because they have poor cows. Of all people, the poor farmer should have good cows.

That brings us to this question. Do you farmers get the most out of your soil?

a. What crops is your soil type especially adapted to?

b. What part of your farm should be in pasture?

c. After dividing your farm into permanent pasture and crop land, what part of the crop land would be suitable for temporary pasture?

d. Can your fields be arranged for convenience in carrying out a three- or four-year rotation?

e. What type of livestock would make the most economical use of the type of pasture and kind of feed you can produce?

f. To what extent would such a livestock program fit into your present fencing and building layout?

g. What will it cost to lime, drain, and prepare your soil for legumes?

h. How much, if any, additional labor will you have to provide?

i. What influence would the local market have on cash crops, livestock, and livestock products that you could produce on your soil?

j. How much credit will you need now to put into operation your improved, adapted plan?

k. What may you expect in appreciation of returns as a result of improved practices contemplated?

l. How does your tentative plan provide for employment of home labor?

m. What advantages would your adapted plan have in meeting the approval of local co-operatives?

n. Do you see any way whereby you might develop a special market as a result of your proposed plan?

o. How many years do you think will be required to put into operation your long-time permanent plan?

p. How much labor will you have then from the home farm?

q. What will be your expenses then as compared to present expenses?

If leading questions of this nature are made the basis of class discussion and if each problem is given proper consideration in view of the facts known, there should be no difficulty in getting the class to draw up fairly air-tight conclusions with respect to any given farm under consideration. Personally, I prefer to have a type-farm under consideration when leading a class discussion. This avoids any embarrassment that might result from personal reference. Also, many farmers are reluctant to discuss their own personal matters. It must be emphasized, of course, that each farmer will have to set up his own program for his particular farm.

Evening-Class Work in Cherry Community

NELVIN E. HOUGLAND, Instructor,
Iron, Minnesota

CHERRY community, in St. Louis County, is the scene of a very successful dairy-herd improvement program instigated and supervised by the Smith-Hughes vocational agriculture department of the Cherry high school. It is a direct outgrowth of farmers' evening schools in dairying, conducted as a part of the vocational agriculture program of the St. Louis County rural schools.

The need for improvements in dairy cattle was very evident, which led to the conducting of evening schools in dairying, resulting in the formation of the first co-operative bull association in 1932. Guernsey cattle predominated in the region; therefore, in building up purebred Guernsey sires should be used. In the five-year period there has been continual growth and substantial improvement in the quality used by the associations. Farmers have become conscious of the need for proved sires, and recognize the value of them. Particular care is given to the selection of sires with outstanding production records behind them and, at present, production records are kept with the aim of securing more information about their value.

Herds in this region are small, average size being five or six cows, which makes it most practical for farmers to join together in the purchase of sires. It would be futile for them to attempt to build up their herds individually, as the financial burden would be too great.

At present there are seven blocks of the association in the Cherry area owning nine purebred Guernsey bulls, with a total membership of 48 farmers owning 350 cows. Expansion of the associations is still proceeding and it is predicted that eventually it will be the only type of dairy-breeding program used in the area. Its five years of existence and growth have proved that it is successful. Farmers that are members have received more for the animals that they have sold, and are securing higher production from the daughters of the bulls than from their dams. The process of improvement is slow and occasionally there are discouragements; but, to the present time, not one of the farmers has discontinued his membership in the association.

In 1936 Cherry community sponsored the annual St. Louis County Guernsey Breeders' Picnic and at that time brought out for display 25 head of high-grade Guernsey heifers that are products of the association bulls. A marked influence of good sires is evidenced by comparing the heifers with the dams. The showing of a community herd at the fair has become a regular practice which has helped to stimulate considerable interest in co-operative bull associations. The exhibiting of dairy cattle is also an outstanding feature of the local community fair, in which a special trophy is being awarded this year to the block of the association that scores highest on its exhibit. Sufficient funds have been derived by some of the groups, by showing at the fairs, to purchase another sire when needed.

A number of the farmers have also recently purchased purebred Guernsey heifers from outstanding herds in the state, and plan to proceed with the production of registered breeding stock. This will help to supplement the present supply of purebred bulls and gives the farmers an opportunity to realize a larger income from their herds.

Regulation size, safe-keeper bull pens have been built by each of the groups in order to insure safety in handling. Some of the groups have also built special trailers for hauling the cows when weather conditions make it necessary.

The district organization of the St. Louis County Guernsey Breeders' Association centers among the bull association members and its development is dependent entirely upon the progress of these groups. Thru this organization it is hoped that eventually a purebred Guernsey sales program can be formulated and carried into effect.

held with the business of the association conducted first, followed by a discussion of pertinent dairy problems. Much additional knowledge about dairying has been gained by every member as a result of these meetings. The groups are also incorporated under state laws and therefore have legal identity which insures the carrying on of the organization in a businesslike manner.

The organization and directing of co-operative bull associations is an example of a sound program of practical agricultural education. It carries into actual practice the things that are being taught, and is a constructive community activity that builds for the future a monument of the vocational agriculture department.

Community Service

LEWIS B. ROBINSON, Teacher,
Falmouth, Massachusetts

NO VOCATIONAL agriculture department can be of maximum value to a community unless it renders community service in addition to its school program. If this type of service were not a part of our program we would feel that we were falling down on the job. However, this type of work is usually done without thought of glory and honor, but solely with the idea of rendering service whenever there is an opportunity to do so. Because it is done in this spirit, we never think of acclaiming our service from the hilltops.

As a result of our survey made a year ago, it was decided to present rather definite agricultural improvement programs to 20 of the more promising and more interested young men out of school and on farms. As these men were a chosen group, it would seem advisable to consider them first.

Ten of the 20 found jobs and spent their time off the farm, for the most part. This was not because of their lack of interest in the farm but was rather brought about by the crying need of sure, ready cash coming into the family pot each week.

Of the remaining, seven were interested in improved strawberry growing, three indicated interest in poultry, three were interested in improved vegetable garden methods, three wanted help on cranberry-growing, and three were desirous of improved dairy programs. It will be noticed that there are 19 projects represented here among ten individuals.

The following tabulation will show the improved practices proposed and the accomplishments in number of individuals, quite variable in their degree.

Strawberries

Variety testing	6
Correct soil reaction to pH5-5.8	6
Control of strawberry weevil (85-15 sulphate lead)	6
Crop rotation	5
New varieties, Dorset, Fairfax, Blakemore	7
Control of flea beetles (Bordeaux-lead)	6
Fertilizer, 1000-1500 lbs. on growing bed; 500-700 lbs. on fruiting beds	1
Association membership	3
Use of rye, buckwheat, or some other green manure crop	7
Protection of bogs from insects and diseases	2
Close inspection for false blossom	2
Association membership	1

Vegetable Gardening

Use lime where necessary	3
Use tested and treated seeds of desirable varieties	3
Apply disease- and insect-control measures	3
Make plantings fit market demands	3
Test out some of latest variety introductions	2

Dairy

Keep milk records	1
Feed well-balanced rations	3
Produce clean milk	3
Breed to good sire	3

Poultry

Poultry project as side line	3
Disease-free stock	3
Clean poultry houses	1
Provide proper green feed	2
Feed balanced rations	3
Keep records	2
Practice good management	2

The above program was adopted in co-operation with the Cape Cod Extension Service. It would be folly to claim perfection in the items listed. However, it is felt that appreciable improvement has resulted.

In addition to work on the above program the following items of community service may be of interest:

4-H Club member project visits	113
Vegetable garden assistance (adult)	33
Fruit-growing project assistance (adult)	13
Floriculture and landscape assistance	12
Seed catalogs supplied	9
Testing soils for acidity	6
Information on use of fertilizers	4
Pruning assistance	5
Corn-borer quarantine information	1
Information on mushroom growing	2
Booklets and bulletins on barn plans	1
Barns built	1
Assistance in abnormal calf birth	1
Assistance with sick cow	1
Poultry literature supplied	7
Poultry-assistance visits	24
Testing milk sample	42
Visits from extension workers	8
Farm visits in community service work	220
Telephone calls received on community service work	21

Assistance in tent caterpillar campaign in which we counted 60,973 egg masses, and had the state winner with a total of 30,464 egg masses.

Thruout this report the editorial "We" has been used. The day-school members of our department worked on the project of caring for the school grounds and surroundings. They also worked on the outside pruning jobs and helped in the testing of most of the milk samples. The rest of the service has been entirely carried on by the instructor.

In addition to the items listed the instructor has been guest speaker on some phase of agriculture before the Portuguese-American Civic League, North Falmouth Congregational Church Forum, Foresters, Kiwanis Club, etc.

This summarizes the community service work for 1936. The 1937 program should show continued advancements over the accomplishments of 1936.

for Part-Time Instruction*

R. H. WOODS, Supervisor,
Frankfort, Kentucky

R. H. Woods

OUR teacher-training program, like Caesar's Gaul, is divided into three parts, namely, the selection of trainees, pre-employment training, and in-service training. Most teachers have much to learn when their pre-employment training isc ompleted. Despite all the effort that may have been put forth to make it a true teaching experience, the teacher, after taking the job, stands in a new relationship to the many difficulties and problems of teaching the farming vocations. In-service training is as much needed as pre-employment training.

In tackling this problem of in-service training for part-time instruction, we may well begin with the situation as we find it today. In Kentucky and in many other states, if I am correctly informed, our early efforts in vocational agriculture were with the all-day group. Then we took on some evening-class work. Part-time work has been, and still is, the neglected member of the family. Teachers of agriculture, in many cases, have not been able to see nor feel the real need of part-time work. In visiting teachers, I have asked them about plans for part-time instruction, and frequently the answer given is to this effect: "It seems that I should do something about part-time work, but really there are no part-time boys in my community. Those of part-time age are all in the CCC Camps or have gone to the cities." Such a statement leaves the supervisor or teacher-trainer in a position where he may argue with the teacher. But this gets him nowhere; the teacher is not convinced.

In order to convince teachers of agriculture, superintendents, principals, and other teachers, of the need of part-time instruction, a part-time survey was undertaken in 11 counties in Kentucky. These surveys were made on a county-wide basis, and all teachers in the school system participated in making the surveys. Let me tell you of the findings in only one of the school patronage areas.

I visited the teacher in this school three months before the survey was made, and he assured me that there were not enough young men in that community to justify part-time instruction. The survey revealed that there were in that community 242 young men from 15 to 24 years of age, inclusive. Two hundred eighteen of these lived on farms. They lived an average of 3½ miles from school. One hundred seventy-three of the 218 young men were farming at home. Only 25 percent of the group was employed full-time or part-time at work other than farming. The average scholastic attainment reached for the group was eighth grade. Seventy-three of the young men had done nothing but farm since they left school. Sixty-three percent of them said they definitely expected to farm. Fifteen percent of them said they did not know what they would do. As I have already indicated, getting ready for a survey is the beginning point in in-service training.

Teachers should be given in-service help prior to making their surveys. Teacher-training institutions will have to be responsible for formulating a survey that will secure the facts needed concerning the part-time group. The first survey should be, in my opinion, a short one. After the teacher has studied the preliminary surveys, he should make a more intensive effort to find out the vocational status of a selected group of young men, their training, and their attitude toward further training. To do this effectively requires an additional survey and perhaps tests designed to reveal attitudes and specific abilities possessed by the prospective part-time pupil. These surveys or tests will have to be provided for the teacher, and the teacher will have to be given instruction as to how to use these devices to secure the information he needs so much.

After a teacher sees the need of part-time instruction, he then is faced with in-service training enters the picture specifically. The thing we do in Kentucky is to offer short, intensive courses during the summer for employed men who are already teaching.

Now, to be a bit more specific about the procedure followed in this course: Each man who entered the course was required to bring with him a complete part-time survey of the community in which he works. He summarized these surveys, which revealed to him the specific needs of the part-time group in his area. These part-time young men, as in most other communities, divided themselves naturally into three groups: those who have had vocational agriculture in the high school, those who have had high-school training but no training in vocational agriculture, and those who dropped out before reaching high school. The teacher may decide to reach all three of these groups. After he decides on the group to be taught, he then decides on the instructional procedure to follow. The greater the heterogeneity of the group, the greater the need for individual instruction; while homogeneity makes group instruction possible and desirable. Our teachers decided this summer that it would be necessary to have both group and individual instruction. They then undertook the task of de-

Enterprise or Subject	Year			
	1937–38	1938–39	1939–40	1940–41
Main Units: Tobacco	15–20 or more meetings			
Dairying		20 or more meetings		
Hogs			15–20 or more meetings	
Opportunities in Farming (Farm Management)				15–20 or more meetings
Supplementary and Related Material:				
Health and Safety Education	6 meetings			
Agriculture as a Vocation		4 meetings		
Business Problems			4 meetings	
Farming as a Mode of Living				4 meetings
Recreational and Social Program	12 meetings	12 meetings	12 meetings	12 meetings
Supervised Farming	Throughout entire four-year course and then into evening			

part-time program. Note the use of the term "continuing part-time program." I mean to contend that a program of part-time instruction should be started and not closed. The program should, perhaps, be divided into two large divisions—main units dealing with technical agriculture, and supplementary and related material. Table I, illustrates what I mean by main units and by supplementary and related materials.

After deciding on the main units and the supplementary and related material to be included in the continuing part-time program, each teacher set up objectives, problems, and references in each enterprise or unit. I cannot emphasize too strongly the necessity of leaving irrelevant material out of the main units in part-time instruction, and the necessity that boys in this course get something immediately usable.

Eleven objectives set up for a proposed course in farm management were:

To develop the ability and attitude necessary to:

1. Discover and interpret one's own interests and aptitudes in farming.
2. See the effect of size of business on income.
3. See the effect of crop yields on income.
4. See the effect of animal production on income.
5. See the effect of labor efficiency on income.
6. Analyze a farm business.
7. Choose the type of farming to follow.
8. Make a wise purchase or rental of a farm.
9. Plan the financing.
10. Discover and evaluate the relation between the abilities and attitudes of a farm wife and success in a farming occupation.
11. Discover and evaluate placement opportunities in farming.

After teacher has his objectives, problems, and reference material in each unit, he is then ready to determine the procedure to be followed in organizing a part-time group. Organizing a part-time group naturally divides itself into two steps: first, organizing the group; and second, steering organization within the group.

After the teacher leaves the institution in which he has worked out his part-time course in some such manner as I have attempted to describe to you, he will, of course, go home and begin execution of his carefully laid plans. The teacher-trainer, preferably the teacher-trainer with whom the teachers worked out the part-time course, should follow them up, check and double check plans with them individually and in small groups.

Teachers who have built part-time courses should be urged to keep a record of their observations, especially in teaching the course they have worked out. These teachers should come together in small group meetings and discuss among themselves and with the teacher-trainer or supervisor the successes and failures of their part-time program, realizing that regardless of how carefully the course may have been built it was this year's model, and next year's model should be a better one.

*Excerpts from an address presented before the Agricultural Section of the American Vocation Association, Baltimore, Maryland, December, 1937.

in Farming

ALFRED H. BATEMAN, Teacher,
Idaho Falls, Idaho

PROGRESSIVE teachers and supervisors generally agree that the principal objective of vocational agriculture is to establish the farm boy in the occupation of farming. The objective of aiding the boy to become established in farming forms the basis of the course of study of vocational agriculture in the Idaho Falls public schools. The educational procedure may be discussed under these heads.

1. Adjusting teaching plans for individual boys.

The success in the use of individual instruction is dependent upon a number of factors. Not the least of these is the study calendar of the individual members of the group. Each boy with the aid of the teacher sets up a course of study for the entire year. Short cuts may be introduced as soon as the teacher and the boy understand the principles involved.

The teacher of agriculture has real opportunity for service in knowing individual boys and their needs; and in choosing, adjusting, and directing the activities that will be most helpful to them. In other words, the teaching procedure or class plans should be adjusted according to the needs of each boy. This has been simplified by using the job-analysis and type-job methods as set up by Carl G. Howard, Associate Professor of Agricultural Education, Idaho. Individual instruction makes it possible for each student to study the enterprises preparing him for the type of farming in which he is most interested. Problems may vary greatly during the individualized study period. For example, the teacher and students may set up a type job on feeding livestock based on objectives, decisions, factors, and information needed to apply the factors. After the assignment has been made each boy can follow a definite procedure as it applies to his own animal enterprise. Different boys may be working on problems of feeding various kinds of livestock. Each boy follows a definite procedure, makes a complete study of principles, and applies them to his own animal enterprise. This is done in the boy's vocational notebook. If the boy's work has been done satisfactorily a stamp of approval, with date and grade, is recorded by the teacher when the job is completed. Each boy is required to do his own work. Individualized instruction may take 50 percent or more of the class time.

(Continued on page 78)

2. Group instruction.

Problems that are common to all students should be taught to the group. Examples of enterprises that are usually taught in group instruction are: farm credit, farm management, marketing, and future farmer activities.

3. Building a long-time program.

In building a long-time program as an aid to establishing himself in farming the boy usually starts in a smaller way and carries on an expanding program during high school and also after graduation from high school. He first selects one or two major enterprises which are expanded in size each year and finally carried on as continuation farm enterprises. In addition to expanding continuation major farm enterprises, the

	SCHOOL YEARS				AFTER GRADUATION	
Major Enterprise	1936–37	1937–38	1938–39	1939–40	1940–41	1941–42
Sheep	6 ewes and lambs	12 ews and lambs	18 ewes and lambs	24 ewes and lambs	30 ewes and lambs	50 ewes and lambs
Swine	.....	.....	1 sow and litter	2 sows and litters	3 sows and litters	5 sows and litters
Beef Cattle	.....	.....	1 cow and calf	2 cows and calves	3 cows and calves	5 cows and calves
MINOR ENTERPRISES						
Brood Mare	.....	.....	.....	.....	1 mare and colt	2 mares and colts
Red Clover	.....	.....	.....	.....	.....	1 acre
CONTRIBUTORY ENTERPRISES						
Wheat	7 acres	14 acres	9 acres	12 acres	6 acres	15 acres
Oats	.....	.....	2 acres	4 acres	6 acres	10 acres
Barley	.....	.....	1 acre	2 acres	4 acres	6 acres
Alfalfa	.....	.....	10 acres	20 acres	25 acres	40 acres
Total Income (estimated)	$10.00	$40.00	$300.00	$500.00	$900.00	$1,200.00
SUPPLEMENTARY FARM JOBS						
Fitting and showing horses					X	X
Fitting and showing sheep			X	X	X	X
Docking and castrating sheep	X	X	X	X	X	X
Mixed feed for livestock	X	X	X	X	X	X
Treating seed	X	X	X	X	X	X
Treating minor diseases of livestock			X	X	X	X
Castrating pigs			X	X	X	X

Studies and Investigations

C. S. ANDERSON

The Measurement Program in Agricultural Education*

G. P. DEYOE, Teacher-Training,
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"Education is not to teach people to know what they do not know but to behave as they do not behave."—Ruskin.

G. P. Deyoe

Measurement in agricultural education has claimed considerable attention from research workers, teachers, and others interested in this field. A little over four years ago, H. M. Hamlin published a summary of 75 measurement studies which had been completed in agricultural education. He concluded that a few techniques of merit had been developed; but he suggested that an extensive job still awaited the research worker, especially in the development of devices and procedures for classroom use in the measurement of various outcomes of instruction.[1] Since this report appeared, there are evidences of progress in certain directions; but much remains to be done.

The discussion in this article is planned to provide orientation in the broad aspects of measuring the results of instruction in agricultural education. A second article, which will appear in a later issue, will include suggestions for the construction and use of tests as one approach to evaluation.

It might be explained at the outset that such terms as evaluation and appraisal seem more appropriate than *measurement*, because, as yet, few or no procedures have reached the stage of exactness implicit in the last term. In the final analysis, even with the development and use of the best instruments now in sight, it appears that judgment will remain a vital part of the process of evaluation. The judgments of teachers may be sharpened by the use of tests and other instruments of evaluation; but it is beyond reasonable expectation to assume that satisfactory verdicts will be rendered with no subjective elements in the process. Scientific procedures, if properly adapted and qualified, have a place in education; but occasionally there are indications that the desire for scientific respectability has led to unwarranted faith in so-called scientific instruments for measurement.

The Need for Improved Evaluation

It is well to admit at the outset that techniques for evaluation have tended to fall into disrepute in some circles. Some people say that learning in its best sense culminates in changes in the individual which are so subtle and multifarious that it is hopeless, if not downright subversive to the best ideals of progressive educational thought, to attempt to measure them. Some contend that tests and other instruments of measurement tend to operate in reverse, and frequently result in instructional emphasis on relatively unimportant outcomes which certain tests are designed to measure. In reference to the former, E. L. Thorndike has said,

> "Our ideals may be lofty and subtle as you please, but if they are real ideals, they are ideals for achieving something; and if anything real is ever achieved, it can be measured. Not perhaps now, not perhaps in 50 years from now; but if a thing exists in some amount, it can be measured."

To the other groups to which reference is made, it might be said that if instruments of measurement affect adversely the materials of instruction, it is a gross misuse of these devices and is evidence of a failure to recognize their potential worth for the improvement of instruction in vocational agriculture.

Teachers in all fields are expected to make some appraisal of the results of their instruction. For the most part, these appraisals have served as a basis for deriving grades, and evaluations for purposes of equal or greater value have been neglected. It is becoming increasingly important that teachers of vocational agriculture develop a broadened concept of the measurement process, and that they learn to utilize the newer procedures and techniques of evaluation. Of the problems which confront teachers and specialists in agricultural education, many of the most persistent seem to cluster in two groups, namely, *what to teach*, and *how to teach*. The solution of the former involves the definition of a program of agricultural education in terms of objectives which are defensible and usable. The solution of the latter involves the development and refinement of instructional procedures which result in progress toward the attainment of these objectives. Progress or lack of progress toward solving these problems can be determined only as instruments for evaluation are developed and improved. Time and again in the professional literature in agricultural education, mention has been made of this handicap which is placed upon research specialists and instructors.

In order to develop instruments and techniques which are most useful for evaluating achievement in agricultural education, *the first step is to define carefully the objectives to be appraised.* (Such a list of objectives, formulated in terms which are meaningful, not only represents the first step in evaluating results but it should provide orientation for selecting materials of instruction and methods of presentation.) While this step seems sufficiently obvious to be taken for granted, failure to develop such a list of objectives and to utilize it after it has been prepared has resulted in the appearance of instructional materials, teaching methods, and measuring devices which in many instances are decidedly inferior.

For orientation in evaluation, it is helpful to start with objectives which are fairly comprehensive. For example, it is possible to designate the ultimate aims of agricultural education in terms of preparation for high-grade living, proficiency in farming, or meeting the needs of life in agricultural vocations. As has been emphasized by R. W. Tyler, before devising ways for evaluating instruction in any field, such *generalized objectives must be subdivided into separate categories that represent the specific kinds of changes in the pupils which the schools are attempting to facilitate.*[2] To be satisfied with less will serve to perpetuate the confusion which is all too evident in much that passes for measurement, to say nothing of curriculum-construction and instruction. In setting up objectives in agricultural education, *it is important to include all types of behavior which are significant in the educational development of the learner for which some responsibility is accepted for that field.*

Stated in terms of the changes sought in the behavior of the learner, the following categories suggest objectives which appear defensible for agricultural education: (1) the acquisition of technical knowledge which is high in value for proficient farming (including factual materials frequently used, basic principles and understandings, and a vocabulary of approved terms); (2) the development of abilities for those types of thought and action which are necessary for success in farming (including the ability to gather appropriate facts and apply them to problem situations, the ability to discover underlying meanings, the ability to evaluate, and the ability to carry into application); (3) the development of manipulative skills which are important for farming; and (4) the development of appreciations, interests, ideals, and attitudes (including the "will to do") which are basic to continuous growth and happiness in the individual and group aspects of farm life.

For the various portions of the program of instruction, it is necessary to formulate even more specifically the goals in terms of changes sought in individual behavior. Again, such a formulation of what to teach will be of inestimable value in deciding how to teach, as well as providing a basis for constructing measuring devices which will determine the degree to which the objectives are being reached. For example, in the study of sheep production in vocational agriculture, some of the objectives might be stated as follows: (1) mastery of a vocabulary needed for the study of sheep production, (2) familiarity with technical knowledge high in value for sheep production, (3) the ability to plan a constructive program for sheep production, including the ability to set up ideals and standards of efficiency for given situations, (4) the ability to solve problems which arise in feeding, health, general care, improvement, and marketing, (5) skill in the performance of various manipulative processes, such as drenching, docking, and castrating, and (6) the development of lasting interests in sheep production. For the purposes of test construction extended lists of specific achievements should be developed for each of these divisions.

Approaches to Evaluation

From the preceding discussion, it should be apparent that anyone who attempts to devise ways and means for evaluating achievement in agricultural education will likely go astray unless the objectives are first defined in terms of changes sought in human behavior. *The ideal in developing a program of evaluation is to devise a system which is sufficiently complete for the appraisal of all measurable outcomes of importance.* This involves: (1) finding situations in which individuals will express the degree of achievement in desired outcomes, and (2) developing a practical plan for recording these expressions.

In the search for situations in which individuals express the degree of achievement, it is important to be on the alert for evidences *wherever they may occur.* As objectives are formulated, some of the procedures for evaluation will suggest themselves. Evidences of value are to be found in oral and written responses in the classroom, in group activities outside the classroom, in situations connected with supervised practice, and in various other responses on the farm, in the community, and in the school. The more varied the approach, the more likely it is that all important types of achievement will be appraised. *The achievement of each pupil should be interpreted in terms of his potentialities to achieve.* Furthermore, a record system for a department of vocational agriculture should be co-ordinated with the records already available in a given school. In each department of vocational agriculture, it would be well to develop a filing system in which the records are cumulative for each pupil. Also, some system of value for appraising the long-time influence of agricultural education should be used for preserving data collected on a community-wide basis.

The following categories suggest several approaches that should be made in the process of evaluation. Types of achievement which may be appraised are suggested for each approach.

1. *Written tests and examinations.* These include essay tests (usually teacher constructed), new-type tests (constructed by teachers or others), and standardized tests. For the most part, these tests are of the pupil-administered, group type. If carefully constructed and interpreted, such tests may be found helpful in evaluating aptitudes as well as past achievements.

2. *Oral responses.* These may be in the form of responses in class discussions, in conferences, and in informal group discussions. Spontaneous thinking and oral reactions to problem stiuations may be appraised, as well as technical knowledge and attitudes.

3. *Check lists.* These provide for quantitative records of experiences, adoption of approved practices, and performance of skills. These may be combined with number 4.

4. *Rating scales.* These are primarily for the qualitative evaluation of traits of personality, attitudes, and pupil performance in various skills.

5. *Performance tests.* These may be combined with number 4 in evaluating the final stage of the learning process. Usually they are most valuable when definite records are made at various stages of the process in question. They are useful in evaluating performance which consists of a number of steps and manipulative processes.

6. *Anecdotal records.* This technique, now coming into use for appraisal in education, has considerable possibility in agricultural education and is especially valuable for recording various aspects of pupil responses in conjunction with situations which come within the observation of the instructor.

7. *General observation of pupil behavior.* This is possible under various conditions, such as activities in Future Farmers of America, in the shop and classroom, and out of school. Socialization, leadership, and initiative are among the traits lending themselves to this type of evaluation. This is related to number 6, and may be included in the same category.

8. *Personal interviews.* Informal interviews are especially valuable in appraising personality traits, noting abilities for meeting obstacles and making plans, and for many other types of evaluation. This is related to number 2.

9. *Evaluation materials.* These are valuable, if they represent individual effort, for evaluating problem-solving ability, resourcefulness, integration, and various attitudes and interests.

10. *Supervised practice.* Records and results are valuable criteria of achievement *if accurately kept and carefully interpreted.* Financial returns, use of approved practices, and efficiency ratings are criteria of value. The last one seems to have greatest possibilities if evaluated for each individual in terms of the conditions under which he operates.

11. *Occupational choices and other follow-up data.* These are helpful for checks on earlier appraisals, permanency of interests, and farming proficiency.

12. *Community surveys.* May be used to measure increased efficiency, adoption of approved practices, increases in co-operative effort, and other aspects of progress on a community basis.

For many of these approaches to evaluation in agricultural education, much remains to be done. This is especially true for the development of achievement tests for classroom use, scales and devices for evaluating performance of various types, and techniques for evaluating interests and attitudes. The next article will be confined primarily to suggestions for the development of achievement tests for classroom use.

References

*Portions of this discussion were presented at the North Central Regional Conference for Agricultural Education, March 30, 1938.

References

1 Hamlin, H. M.—"Summary of Measurement Studies in Agricultural Education," *Agricultural Education*, Vol. VI, November and December, 1933, pp. 74–77 and 90–93.

2 Tyler, R. W.—*Constructing Achievement Tests*, Columbus, Ohio: Bureau of Educational Research, Ohio State University, 1934. (Many suggestions of value for orientation in test construction are included in this publication.)

Full-Time and Pro-Rated Teachers

INTERESTING figures concerning the number of full-time and pro-rated teachers of all-day classes in agriculture were recently revealed in a report of a survey on the subject made by Dr. F. W. Lathrop, Specialist in Agricultural Education Research, Office of Education, Washington, D. C.

Doctor Lathrop found that in 1936 59.4 percent of the teachers of agriculture were devoting full time to the teaching of agriculture. The time of 40.6 percent of the teachers was divided between the teaching of agriculture and the teaching of non-vocational subjects, serving as school principals and superintendents, and in performing various other assigned duties.

Approximately 600 agriculture teachers served as the administrative heads of their schools, and one third of this number taught in addition at least two other subjects in the curriculum.

In the North Central and Pacific Regions and in the negro schools, there were more pro-rated teachers than there were full-time teachers. The highest proportion of full-time teachers was found in the Southern Region.

The accompanying table prepared by Doctor Lathrop shows in detail the results of his survey.

KINDS OF CLASSES CONDUCTED BY TEACHERS OF AGRICULTURE—FISCAL YEAR 1935-36

United States and Regions	Total Teachers	Number of Teachers Conducting			
		All-Day Classes Only	All-Day and Evening Classes	All-Day and Part-Time Classes	All-Day Part-Time and Evening Classes
United States	5,474	2,537	1,712	562	663
North Atlantic	870	449	87	310	24
Southern (W)	1,834	372	1,082	84	296
North Central	1,605	1,104	301	140	60
Pacific	600	524	59	11	6
Negro Schools	565	88	183	17	277

Future Farmers of America

L. R. HUMPHERYS

Merit System for F. F. A. Members

ELGIN HALL, Adviser,
Worland, Wyoming

AT THE opening of school in September, 1936, the Chief Washakie Chapter of Future Farmers decided that our chief objective would be the tenth annual convention at Kansas City in October, 1937. We immediately formulated a plan by which we could choose four of the outstanding boys to make the trip.

We decided that a merit system could be worked out giving each boy proper credit for his contribution to the making of the annual program of work a success.

A list of self-improvement and leadership activities was set up. Money-making activities and community services were added, and these were all placed at the top of a large chart with the boys' names down the left-hand side and squares made for each activity for each boy. In these squares was placed the number of points given the boys for the particular activity.

Three hundred dollars was set as the goal for our money-making objective to be used as expenses for the boys and the instructor for the trip to the convention. Five points for each penny earned for the chapter was given each boy.

Before this year it was quite difficult to secure good attendance at F. F. A. meetings, but now we have very good attendance. In fact, at some of our meetings we have 100 percent attendance despite the fact that some of them live great distances from town.

Besides the direct good that the boys themselves get from this work, it sells the agricultural program to the community. We have two weekly papers and in each we have a regular column of F.F.A. news and timely suggestions under our F.F.A. emblem.

This merit system has been so successful this year that we plan to build our program of work around it another year with a trip to the national convention as the reward to the most deserving boys.

We believe that Future Farmers need more publicity, but first do something to warrant publicity.

The following is a list of our activities for which points are given. These activities and the number of points for each can be changed to suit local situations.

LEADERSHIP OR SELF-IMPROVEMENT ACTIVITIES

1. Attendance at F.F.A. meetings.
2. Attending father and son banquet.
3. Part taken in parliamentary procedure at F.F.A. meetings.
4. Offices held in F.F.A.
5. Offices held in class or other school organizations.
6. Play cast—operettas.
7. Glee club.
8. Athletics.
9. Any other school contest.
10. F.F.A. public speaking contest.
11. F.F.A. state convention.
12. F.F.A. degrees.
13. Band.
14. Local livestock judging contest.
15. Big Horn Basin livestock judging contest.
16. Midland Empire livestock judging contest.
17. State livestock and farm mechanics contest.
18. Highest grade.
19. Consistency in making good grades.
20. Most improvement in grades.
21. Best balanced supervised farming program.
22. Best set of record books (three or more).
23. Best one record book.
24. Project with largest net returns.
25. Scrapbooks.
26. Contributing local news to paper reporter.

MONEY-MAKING ACTIVITIES

1. Hamburgers at all-star football game.
2. Xmas trees.
3. Hotbed construction.
4. Sales at basketball tournament.
5. Delivering hotbed plants.
6. Box social work.
7. Paid up dues.
8. Dance-work-lunch.
9. Prizes at local and state fairs.

COMMUNITY SERVICES

1. Tree planting programs.
2. Building articles in shop for individuals or clubs in community.
3. Tree and shrub pruning.
4. Home improvement projects.

We have over $200.00 in the bank at the present time and expect to reach our $300.00 mark before next October, so that we will be seeing you in Kansas City.

STATE F. F. A. ASSOCIATION NEWS ITEMS

Former President Hoover Addresses Future Farmers

AT THE final meeting of the exhibitors of the Interstate Junior Livestock Show at San Francisco, Herbert Hoover, former President of the United States, spoke of the revolution going on in agriculture. He indicated that it would be necessary to reconstruct the course of agriculture as an industry and that the young men of today must, to a large extent, assume the responsibility of this task. Over 1,500 Future Farmers attended the banquet the evening of the closing day of the show to witness the giving of awards and to hear Mr. Hoover.

Nearly 3,000 fat animals were exhibited from the Intermountain States in this annual April Show during the week preceding Easter; of this number, the Future Farmers from California, Utah, Idaho, Oregon, and Nevada furnished 80 percent.

This exhibit of fat cattle, sheep, and hogs represents the choicest animals from the Western States, and brings together the future livestock raisers and breeders in what proves to be one of the outstanding co-operative enterprises of the country.

The grand champion steer was exhibited by Verl Anderson, Bear River Chapter, Utah. It was sold in the auction ring for 96 cents a pound. The meat packers, grocery stores, and buyers of San Francisco Bay area co-operated in a marvelous way in the purchase of the animals during the auction sale.

Co-operative Tree Planting

THE Future Farmers of Nebraska are taxing the State Extension Forestry Service to the limit this year. Over 36,000 trees will be planted in the state this spring. Mr. Maxwell, the Junior Extension Forester, has this to say concerning the Future Farmer activities in tree planting: "The demand for evergreen transplants was greatly in excess of what was anticipated. The allotment of 22,000 trees is not sufficient to supply 500 to each of the schools which have applied for them. We are, therefore, adjusting the orders with some substitutions which we hope will be accepted."

Over 66 Future Farmers chapters in Nebraska are co-operating this year in setting out trees.

Project Insurance

FUTURE Farmers in Nebraska, Utah, and other states are adopting a group insurance program in the co-operative purchase of baby beef for feeders. In many of the cases the boys pool their interests by their buying beef in carlots. For each baby beef that is purchased the boy deposits $2.00, which is held as an insurance fee in the treasury of the local chapter or by the local banker. In the event of a loss of a calf the $2.00 insurance fee from each member is applied to reimburse the boy in part or full for the payment of the calf. In case of a loss of a number of calves the money is pro-rated to all the boys suffering a loss with the idea of lessening the burden of each individual boy. In the event of no loss, the money can be either returned to the boy or held as a reserve fund to cover future investments. This plan of insurance is new in some of the states. It appears to be very practical and meets with the approval of bankers and other people interested in financing worthy projects.

Bird's-Eye View of Supervised Practice

THE Preston Chapter of Future Farmers of Idaho believes in educating the public to the extensiveness of the supervised practice program of the boys registered in vocational agriculture. Members of the chapter recently built a display board 8 x 4 feet constructed from 3-ply beaver board, inserted in an artistic frame. A two by two foot map of the county school district area was set in the center of the frame. The residence of each boy in vocational agriculture was located on the map by a pin with a large colored head. A string led out from each pin to the edge of the map where the card gave the boy's project and rating. As soon as possible photos of each boy and his project were attached to this card in the edge of the map. Chapter pictures were also mounted on the edge of the map. This display board has created a lot of interest in the community. It was used in a teacher's institute display and is now being displayed in a prominent show window in the business section of the city.

Culture and Agriculture

THE Courier-Journal has set up a program by which every vocational agricultural department of Kentucky adorns the walls of its department with reproductions of famous paintings. The paintings are reproduced in original colors with a color surface of approximately 11 x 14 inches. This is the beginning of a movement which is spreading in the country to provide in rural centers CULTURE as well as AGRICULTURE.

The Dairy Products Association of Kentucky has initiated an innovation of realizing the need of developing leadership. Recently it advertised an "Impromptu Speaking Contest." Attractive prizes are offered to boys who are successful in developing the ability of responding readily to perplexing questions in the field of agriculture.

Co-operative Buying and Selling

ONE Chapter in Kentucky sold purebred hogs to farmers and Future Farmers in 14 counties of the state. Members of another chapter sold purebred hogs in four states and as many counties in Kentucky. A third chapter sold over 100 head of purebred hogs to farmers in the local county. Co-operative buying and selling is promoted thru an exchange list of sales and prices which are distributed among the local chapters.

Montana Organizes a State Band

MONTANA has organized a Future Farmer Band composed of 76 members from 19 chapters. These young musicians will participate in the all-state Future Farmer Band during State High School Week. The new organization was brought into existence as a result of the efforts of State Adviser Johnson and Professor Lou Howard, Director of the Montana State College Band. The band members will arrive on the State College Campus a day ahead of the delegation and contestants for the annual meet in order that they may practice and furnish music for the various programs on the college campus. This is the first band in the F. F. A. history of Montana to be organized on a State Association basis. A great deal of enthusiasm has been shown in this undertaking, and evidence points for the success of the first all-state F. F. A. band.

Ohio Encourages Cartoonists

THE executive committee of the Future Farmers of Ohio at its spring meeting set up a program to encourage the art of cartooning among the Future Farmer members of the state. The primary purpose in this action was to lend interest and color to the state publications and to give promising cartoonists an opportunity to develop their abilities. A committee was appointed to examine and evaluate cartoons which are submitted in the contest to be used in future publications. Cash prizes will be awarded to each Ohio Future Farmer whose cartoon is published. Any individual may submit one or more cartoons. Special encouragement is given to cartoons depicting humorous situations on the farm, in the classroom, during F. F. A. meetings, and on F. F. A. trips.

Idaho Boys Grow Fancy Potatoes

THE Future Farmers of the Heyburn Chapter came to the conclusion that unless they could produce a higher yield than the average for the territory, their project work is not worth very much. The group of boys planned and succeeded in raising a high quality of certified seed for their local planting for the year 1936. This was made possible by very careful rogueing and hill selection. At the conclusion of the analysis of 1936 reports, 14 Future Farmer projects had been completed. The average yield in these projects was 120 sacks per acre compared with 98 sacks per acre for the community. Three of the boys secured an average yield of 197 sacks per acre. In every case the boy's land yielded more than his father's where the father did not plant certified seed. Four of the boys in the second year's experience planted seed one year from certification and had an average yield of 153 sacks per acre. The boys who planted common sortings had an average yield of 110 sacks per received an average of 52 sacks per acre. The chapter concluded that the evidence for the need of certified seed is present in abundance in this little chapter experiment.

More Conservation

The Future Farmers of New Hampshire planted over 40,000 white pine seedlings during the last planting season.

National Junior Livestock Show

The Interstate Junior Livestock Show for 1939 will be held in April in the Livestock Auditorium on Treasure Island in connection with and a part of the World's Fair at San Francisco. While it has not been announced officially, the officers of the World's Fair are planning on housing all the Future Farmers exhibitors in boats anchored off Treasure Island in San Francisco Bay.

Certificates vs. Ribbons

California will inaugurate a new practice this year by replacing *ribbons* with *certificates* for project competition in all regions of the state. The new certificates will be signed by the state adviser and president, and the regional F. F. A. adviser and president. They will be filled in with the boy's name, the prize won, the class of project competition, the region, and the year. The certificate bears the Future Farmer emblem in gold color, overlaid with blue printing.

Vice-President Visits Maine

William Stiers, Vice-President of the National F. F. A. organization, Alexandria, Ohio, visited the Future Farmers of Maine during their State Convention in June. This is the first trip of a national officer of the Future Farmers to the most eastern part of the country.

Kansas Holds to Standards

Six State Farmer candidates, and one public speaking candidate from Kansas were denied the privilege of competing this year because the chapters they represented failed to file their chapter programs of work on or before November 1. Were these Future Farmers penalized because of the failure of local advisers or local officers? The Kansas State Officers are to be complimented in holding to standards.

Florida Co-operates

The Florida Forest Service will provide a two weeks free camp school to one first year forestry student of each chapter of Future Farmers as an award for outstanding forestry work.

PROFESSOR Edward H. Jones, head of the Agricultural Education Department of the North Dakota Agricultural College and State Supervisor of Vocational Agricultural Education passed away unexpectedly at his home in Fargo, Saturday evening, September 17, from uremia.

Altho Professor Jones had been in poor health for more than a year, he appeared to be improving and his many friends were looking forward to complete recovery. Up until a week before his death, he was at his desk a little each day. Professor Jones was a pioneer in vocational agricultural education. He organized and supervised vocational agricultural education programs in North Dakota from the start after the passage of the Smith-Hughes Act. Serving as

E. H. Jones

head of the Agricultural Education Department at the North Dakota Agricultural College, he was directly in charge of training vocational agricultural instructors. Two years ago at the death of Dean A. D. Weeks of the Education Department of the North Dakota Agricultural College, Professor Jones was placed in charge of the School of Education.

Before becoming a member of the North Dakota Agricultural College faculty, Professor Jones was in charge of the Walsh County Agricultural and Training School at Park River, North Dakota, for a period of three years. He came to North Dakota in 1912, accepting his first position in the state as professor of biology and elementary Agriculture at the State School of Science, Wahpeton, North Dakota. Previous to this he was an assistant at the University of Wisconsin. For two summers he served as director of the state summer school for elementary and rural school teachers. From September, 1934 to April 1, 1936 he was on a leave of absence from the Agricultural College to serve as state director of the North Dakota FERA Educational Program. During his years of service at the North Dakota Agricultural College, he has taken an active part in serving on numerous committees and positions of the time of his death, having been born at East Hampton, New York, August 21, 1885. He was a graduate from Lafayette College, Easton, Pa., with an A. B. degree; from the University of Wisconsin in 1913 where he received his master's degree; and he completed work at the North Dakota Agricultural College for a B. S. degree in 1923. Professor Jones was a member of the Phi Kappa Phi and Kappa Delta Pi.

Professor Jones leaves two sons, Dayton of New York and Robert at home; two daughters, Margaret and Jean at home; his stepmother, Eudora Jones, and a brother George, both of East Hampton, New York.

His activities and his fine qualities of leadership have made a host of friends, not only in North Dakota but thruout the country. He will be missed by all who knew him, for—

"He was a friend whose heart was good,
Who walked with men and understood;
His was a smile men loved to see,
His was a hand that asked no fee
For friendliness and kindness done.
And now that he has journeyed on,
His is a fame that never ends—
He leaves behind uncounted friends."

—*Ernest L. DeAlton, Fargo, N. Dakota*

Today's Sermon

(Continued from page 63)

to the high heavens instead of snuggling toward the ground. Sand bags did no good. The bow was too prominent. To make a long and disappointing story short, a real tradesman was employed to right the wrong at about one and one-half times what the original price sans tinkering would have been and, most important of all, another gullible merchant was inveigled into charging enough fishing tackle so that various and sundry flies, leaders, and spinners might be spread in the trees and bushes near the creeks haunted as a memento of the efficiency of the vacation as a means of leaving behind the cares of the classroom.

The moral, if any, seems obvious. Do not go beyond the limits of reason in trying to save too much time or money by attempting to do highly specialized jobs in any field in which others are more highly trained than you.

The picture has been trimmed by the first digression to fundamentals and framed by the second in keeping it within due bounds. The easel has been supplied by the thought and analysis made by the teacher, and the light of reason has been applied to more clearly reveal a single central theme which may be the answer to the question asked the teacher, "If you could do only one thing in farm mechanics, what would that one thing be?" The theme of the trimmed, framed, mounted, and lighted picture would be "Mechanical Resourcefulness"; the trimming, the elimination of other irrelevant motives and objectives; the frame, that of horse sense in remaining on one's own side of the fence; the easel, the plan by which the teacher hopes to have boys attain mechanical resourcefulness, and the light, that of co-operation with existing training and commercial agencies, to the end that "boys and repair work that needs to be done on the average farm with the tools the average farmer may reasonably be expected to have."

How well the picture as indicated is appreciated is the job of the farm mechanics teacher, and he may be said to have done well indeed if the students who go out of his shop are in a measure "mechanically resourceful," yet realize their own limitations and employ an expert where expert work is needed.—Carl G. Howard, Idaho.

Getting Boys Established in Farming

(Continued from page 73)

student further broadens his farm-enterprise program by adding other minor and contributory farm enterprises. He also selects a list of supplementary farm jobs and farm practices which will round out his farmer-training program. The following long-time training program of Jay Bailey is set up for a period of six years.

4. Part-time and evening classes.

J. A. Linke, Chief of the Agricultural Education Service, in the July issue of Agricultural Education Magazine says: "We might think that our obligation to the vocational student ends when he gets placed on the job, but here is one of the most crucial periods of his career, and his success or failure may depend on his ability to solve the many problems facing him at this particular time. There should be a careful follow-up of former students thru continuation education program in evening classes, where adult farmers can discuss their farm problems and devise ways and means of improving farming programs." We do not have farm boys in high school long enough to give them sufficient training for successful farming. Therefore, it is necessary to continue their training thru a series of part-time and evening classes after they leave high school.

Teaching Farm Machinery

(Continued from page 67)

deal with mowers and it is thru these that they solve their problems. So far two of the three groups have completed this activity and only once has the instructor been called upon to give aid. A very important part of the activity is the study of the parts. Each pupil lists the various parts, describes them, and gives their function.

Unless something unforseen happens I hope to continue to use this plan and next year to purchase another machine, possibly a corn planter. There is no job in the shop that seems to attract the pupils as this one has. They are anxious to work on the machine and after the job is completed they feel that they have learned much. Each pupil expressed the opinion that he would be able to do the same thing with another machine. Therefore, their biggest gain is the attaining of self-confidence.

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