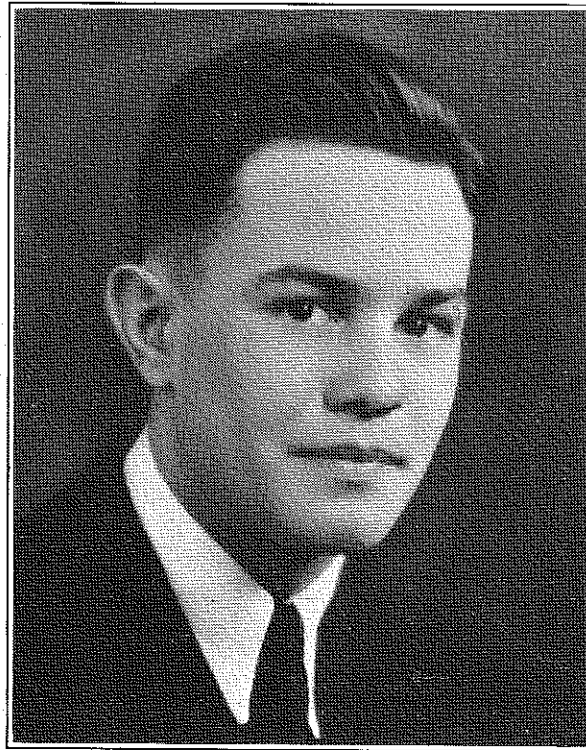


# Agricultural Education



Bobby Jones, Radnor, Ohio, newly elected National President of the Future Farmers of America

*Teachers are charged with the responsibility of balancing their program of work, and the organizing and advising of a local F. F. A. chapter is now recognized as one of the major responsibilities of every teacher of vocational agriculture.—R. B. Smith.*

# EDITORIAL COMMENT

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

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## SUBSCRIPTIONS TO AGRICULTURAL EDUCATION MAGAZINE

A YEAR ago we said that at the A. V. A. meeting in Detroit in December a large chart would show the 12-month average number of subscriptions to the magazine and the percentage of teachers subscribing, for each state. Below is the chart shown at Detroit. Are you proud of the ranking of your state? No state should be content with less than 110 per cent subscriptions. The magazine needs your loyalty.

### STATES RANKED BY SUBSCRIPTION PERCENTAGES

State and Rank	Per-centage Subs.	Ave. No. of Sub-scriptions (12 months) Dec. '32-Nov. '33	No. of Teach-ers 1932-33	State and Rank	Per-centage Subs.	Ave. No. of Sub-scriptions (12 months) Dec. '32-Nov. '33	No. of Teach-ers 1932-33
1. Del.	145	16	11	25. Okla.	88	104	118
2. Nebr.	134	98	73	26. Ga.	79	110	140
3. W. Va.	130	78	60	27. Vt.	79	11	14
4. Wyo.	130	39	30	28. Conn.	78	14	18
5. Nev.	120	12	10	29. Mo.	76	109	143
6. Me.	119	32	27	30. Utah	76	28	37
7. Colo.	115	62	54	31. Minn.	71	53	75
8. N. H.	114	16	14	32. Tex.	70	236	337
9. Wash.	113	52	46	33. Mont.	69	22	32
Minimum percentage line-110				34. N. D.	67	35	52
10. N. J.	109	24	22	35. Miss.	63	127	201
11. Ohio	109	229	211	36. Tenn.	61	112	185
12. N. Y.	107	161	150	37. Ala.	60	87	144
13. Wis.	107	107	100	38. S. D.	59	19	32
14. Iowa	106	112	106	39. Ill.	58	135	231
15. Ind.	103	142	138	40. Penn.	47	54	115
16. Va.	103	185	179	41. Calif.	40	51	127
17. Ky.	102	134	131	42. La.	37	46	126
18. N. Mex.	93	27	29	43. Md.	33	14	43
19. Mass.	91	61	67	44. S. C.	25	58	235
20. Idaho	90	19	21	45. N. C.	15	20	190
21. Kans.	90	103	114	46. Ariz.	10	2	21
22. Fla.	89	49	55	47. Ark.	6	9	146
23. Mich.	89	160	180	48. R. I.	0	0	8
24. Ore.	89	31	35	D. C.			14
				U. S. Pos.			88
				Foreign			6

Note: Connecticut's rank should have been based on 14 teachers.

### UNION OF FEDERAL EDUCATIONAL AGENCIES

THE two major federal agencies concerned with the promotion of education in the United States have been united under the Department of the Interior.

By official order the functions of the Federal Board for Vocational Education have been transferred to the U. S. Office of Education in the Department of the Interior. The U. S. Commissioner of Education will direct the activities of the enlarged Federal Office of Education.

"This transfer of the functions of the Board is not to be interpreted as any curtailment of the activities of the Federal Government in the field of vocational education," said Secretary Ickes. "Both Commissioner Zook and I have long been deeply interested in vocational education and we both propose to promote the development of this highly important part of the field of education vigorously."

On the occasion of his being given general supervision of vocational education in the enlarged Federal Office of Education, Commissioner Zook replied to Secretary Ickes' order: "I wish to assure you that I have a deep sense of the importance of this added responsibility. I will, to the best of my ability, promote the cause of vocational education vigorously and wisely. I trust that this union of educational forces in the Federal Government will increase the effectiveness of the service which the Federal Government renders to the States and local communities in the conduct of their educational programs."

### HAS INSTRUCTION THROUGH SUPERVISED PRACTICE BEEN GIVEN A FAIR TRIAL?

PROBABLY no medium of modern education has been under public scrutiny more or has been more misunderstood than has the supervised practice program of vocational agriculture. This misunderstanding has not been confined to the layman. To both layman and educator, schooled in the traditional classroom, the supervised practice program has too often been considered extra-curricular. Practical to be sure, but not important enough to interrupt farm activities or formal classroom instruction, and of little worth in training boys for effective farming. Being outside of regular school jurisdiction, the supervised practice program (commonly called "projects") has fallen by the wayside as an instrument of systematic instruction. Not only is it often confused with, but many times is identical with club work. Too often, outcomes are on a competitive basis, and not on what has been learned. In close connection with this is the frequent exploitation for publicity purposes. Substantial prizes to contest winners, and exorbitant prices sometimes paid for finished products often give a distorted sense of values to young boys seriously considering farming as a life work. So long as this condition exists, supervised practice will grow away from its intended place in systematic agricultural instruction, which should be:—an important training device to fix habits of doing and of thinking.—H. D. Garver, Instructor in Vocational Agriculture, Merriam, Kansas.

### HABITS

A STUDY of the chief causes resulting in dismissal of employees shows that approximately 30 discharges out of every 100 were because of lack of industry. That is, these people failed to give their time, energy, and thought to the job for which they were paid. Twenty-six per cent of the dismissals were due to failure to follow instructions, while approximately 10 per cent were due to lack of knowledge. This is significant in that it shows that over 50 per cent fail because they have not formed correct habits. From this, it is evident that any vocational school or class must concern itself not only with the vocational training but with the habits it develops in connection therewith.

A vocational school or class must be organized and the instruction must be given in such a way that the pupil not only acquires the skills and knowledges of the occupation, but that in doing so, correct vocational habits are formed. It is perhaps unnecessary to say that the instructors themselves must have acquired the knowledges, skills, and correct habits in a vocation if they are to train persons for that vocation. A pupil may master all of the knowledges and skills connected with an occupation, but if in doing so his activities are not directed, if an inferior quality of work is accepted, if he is permitted to loaf, if no responsibilities are placed upon him, it can not be expected that he will develop correct habits of thinking and doing.—Vocational Education in Agriculture, Puerto Rico.

# Professional

## Looking Forward and Backward at Agriculture

F. W. TAYLOR, Director, Commercial Departments, University of New Hampshire

WITHIN the past 75 years agriculture has emerged from an industry dependent largely upon primitive horse and man power to a veritable giant of modernized machinery. This huge creation which we call our present-day agriculture has for its objective a larger production of a better quality product, at a less cost per unit with the employment of decreased man power. The older and the basic problem of agriculture, to make the farm profitable, however, remains the same.

Labor-saving machinery and improved processes have been working their magic in the country as well as in the city. Seventy-five years ago the time of human labor required on the average to produce a bushel of corn was 4 hours and 34 minutes; now it is 41 minutes. To produce a bushel of wheat today from beginning to end requires only 10 minutes of labor; 75 years ago it required 3 hours. To make a ton of hay when Abraham Lincoln was President required the labor of 35 hours; now only 11 hours and 35 minutes.

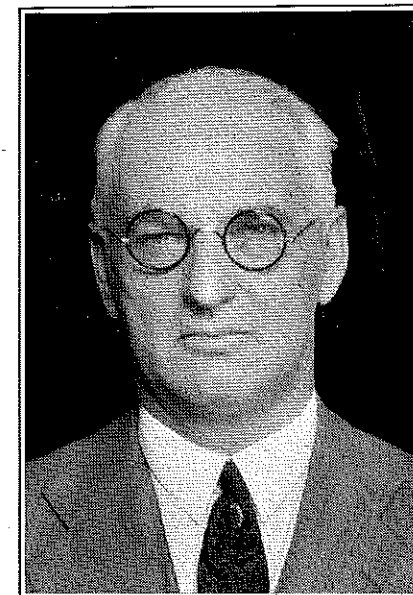
In 1880 the rural population of the United States was about 36 million; in 1930 it was about 54 million. In 1880, 71 out of every hundred of our people lived in the country; in 1930 only 44 out of every hundred lived in the country. In spite of this large percentage decrease of our rural population, the output of our farms has vastly increased. Although the number of our farm workers has less than doubled in this 50-year period, the quantity and value of our farm produce has been multiplied by 20.

Can we not here see the reason why so many men can be spared to go from the farm to the factory without interfering with our agricultural progress? Can we not here discover why the cities of America can multiply by ten in the same period that our farming population is multiplying by two, and can do so without any false proportions? The rapid growth of our cities and the change of agricultural producers on our farms to agricultural consumers in our industrial centers simply reflects increased efficiency in farm production which in turn is simply the result of more extended application of science to farm work.

The widespread agitation in favor of farm legislation which resulted in the passage of the Agricultural Marketing Act with the appointment of the Federal Farm Board four years ago, was the first movement to bring the economic problems of the farmer prominently before the public. The present commissions made possible under the National Industrial Recovery Act, like the Agricultural Adjustment Administration, the

Dr. Taylor, author of the article beginning on this page, presents an analysis of rural life in America of unusual interest to teachers of agriculture. His keen grasp of the long-time and significant trends in agriculture makes the article a real contribution to the permanent files of current reading and source material for our readers. Dr. Taylor writes that he has been in New England long enough to learn to eat baked beans every Saturday night and to say, "How be you." He was graduated from Ohio State University in 1900. He has served as assistant at the Ohio experiment station, assistant in the Bureau of Soils, Professor of Agronomy at New Hampshire and Dean of the College of Agriculture at New Hampshire University, 1915-33. At present he is Director of the Commercial Departments at this University.—A. K. Getman.

Farm Credit Administration, the Federal Emergency Relief Administration, the Dairy Marketing Corporation, and



F. W. Taylor

others, are powerful agencies skillfully maneuvering their forces to solve that basic problem of making the farm profitable. Although it is doubtful whether all of our farmers' difficulties can be met and mastered by legislative means, the extent of the "farm relief" movement does, however, demonstrate the growing public consciousness of the fact that satisfactory agricultural earnings are of importance, not only to the farmers themselves but to the other interests of the country as well.

What is of particular significance to industry is the fact that our factories are depending upon farm markets to

absorb an ever-increasing share of our industrial production.

Up to about the beginning of the present century, the income of the farmer was derived from two chief sources; first, his profit, representing the difference between the cost of producing his crops and the price he sold them for; and, second, the steady increase in the value of the land in which he had invested his capital.

Today, however, with the introduction of modern labor-saving machinery and the application of managerial skill, the present amount of cultivated land is more than enough to produce food for the markets. Therefore, very few farms are increasing in value, and rising land values can no longer be counted upon to increase the farmer's income.

To illustrate, it is estimated that 7 per cent of the world's arable land, 6 per cent of its people, and only 4 per cent of its agricultural workers are found within the United States. Yet the United States produces about 25 per cent of the world's wheat, 75 per cent of its corn, 60 per cent of its cotton, 50 per cent of its tobacco, and 25 per cent of its oats, hay, and flax.

This amazing record demonstrates forcibly that the change from hand power to machinery, making possible mass production, has at last permeated our agriculture. Today, agricultural workers are being replaced by machines which can do their work quicker, better, and cheaper. Thousands of agricultural workers are being released every year for other kinds of employment. These progressive changes to secure a larger production of a better quality product at a less cost per unit with the employment of decreased man power, by the way, is one of the fundamental procedures of what we call "world progress" or civilization.

The extent to which the farms of our country have been depopulated during the past decade is really startling. The estimated decrease of farm population from 1920 to 1930 was at the average rate of about 400,000 persons per year for the ten-year period. Since 1930, our farm population has been increasing slowly, due to a slight increase of births over deaths, and to a small exodus of city dwellers to farm homes on account of urban unemployment. In spite of all this, the supply of farm labor today in every section of the country exceeds the demand.

Some of our agricultural experts tell us that with adequate capital and skilled management, the market for agricultural products in this country could be supplied by one-half our number of farmers on one-half the present acreage.



...of much of our marginal crop land to forest and state domains is sure to play a prominent part in the solution of our problem of crop surpluses.

Certainly, no amount of legislation can alter the increasing efficiency of our farm workers aided by modern and efficient machinery. Our so-called "master farmers" are exponents of what we may call the "new era in agriculture."

These men, through adequate capitalization, skilled management, and business methods of farming, are making a profit year after year, regardless of market fluctuations which so often bring distress to the farmer whose production costs are high because of hand labor, lack of machinery, and poor management.

These master farmers enjoy all the advantages of well-to-do city dwellers. Their children go to college in greater proportion than those of city people in a great many states. Not long ago Kansas and Nebraska, both distinctly agricultural states, tied for fourth place among the 48 states in the proportion of their population attending college. At the same time, Massachusetts, for example, containing a large population of city dwellers, ranked twenty-second.

In spite of the numerous discouragements for our farmers in the last few years, it is now conceded by many that the "peak" of the agricultural depression has been passed. The present outlook is certainly more hopeful than it was two years ago. There is much evidence that the former prosperity of agriculture will soon be regained. In fact, it must be regained because a basic industry like agriculture which produces our food and clothing must be prosperous in order to be maintained. We must all eat food and wear clothes, and the producers of these articles must have a fair margin of profit. Both logically and economically, therefore, the business of agriculture in the long run is bound to be prosperous.

### The Open Mind

"THERE is the attitude of open-mindedness, which is the supreme achievement of training in thinking. In matters that require thinking we are frequently predisposed to take sides on the question at issue. When our feelings become engaged, it may be very difficult to maintain the attitude of impartial inquiry. We are too eager to have the question settled our way to be prepared to examine with care what may be said on the other side. Our natural disposition is that of a partisan, and not that of the impartial investigator. The latter attitude is one that must normally be acquired by systematic repression of disturbing feelings during the process of inquiry, by cultivating the disposition to give consideration to all the angles of the question, before reaching a decision. In the field of the sciences this requirement has a sanctity akin to that of a religious duty. The obligation of education is to give it a similar authority in the dealings of men with one another."—Massachusetts Staff Letter, From Bode's "Fundamentals of Education."

*New Land*, by Sarah Lindsay Schmidt, Published by Robert M. McBride and Co., 4 West Sixteenth St., New York City, 317 pp., illustrated, price \$2.00. A novel for boys and girls, based upon vocational education in agriculture. The story has a Wyoming setting, is intensely interesting and distinctly informative. The reader will, indirectly, become informed concerning the program in vocational agriculture and the important part it is playing in the lives of rural youth. The agricultural project, farm shop, judging contests, and how vocational agriculture training helps young people to become established in farming are phases of the program in vocational education in agriculture which are skillfully woven into this story. *New Land* was the August selection of the Junior Literary Guild. The book should be in every Future Farmer chapter library, and should be read by all vocational agriculture students and instructors. Renewed faith in vocational agriculture will result from the reading of this delightfully written story. Both old and young people will enjoy this novel. The author is the wife of Dr. G. A. Schmidt of the Colorado Agricultural College. A. P. D.

### A Handbook on Teaching Vocational Agriculture

by Glen C. Cook

Assistant State Supervisor of Agricultural Education in North Dakota  
Published by the Interstate Printing Company, Danville, Illinois

A new book (1933), intended to be used by teachers in service as a handy reference volume and by teacher trainers as a class text. Main portion 359 pages, divided into 30 chapters. Part I gives a full discussion of classroom teaching, with sufficient detail to make it useful to beginning teachers and in college classes. Part II, consisting of 54 pages, is devoted to supervised farm practice. Part III, with 60 pages, deals with the organization of instruction in farm mechanics and with methods of teaching in the shop. Miscellaneous activities, such as; The Summer Program, Future Farmers of America, Father and Son Banquets, Agricultural Evening Schools, and Part-Time Work, are discussed in Part IV. The book is written in an interesting manner and contains a considerable number of well chosen illustrations. The print is clear, and the binding good.—H. E. Bradford.

*Farm Structures*, Edward Richard Jones, published by the author, College of Agriculture, Madison, Wisconsin, 197 pp., illustrated, price \$1.00. The book is dedicated to the Smith-Hughes teachers of agriculture in the high schools of America. Tile drains, terraces, dams, fences, buildings, equipment of buildings, concrete, heating and ventilation, water supply and sewage disposal, leveling, drainage systems and cost estimates indicate the nature of the subjects treated in the 22 chapters of this book. There are 151 desk problems, several field work problems, and many laboratory exercises suggested. A work-

...knowledge of algebra is assumed. The text is on a plane designed to meet the need of students who have not had training in higher mathematics. This book should prove of much value in the teaching of farm mechanics in vocational agriculture.—A. P. D.

*Range Sheep and Wool in the Seventeen Western States*, John Wiley & Sons, price \$3. Part I, *Range Sheep*, by Fred S. Hultz; Part II, *Wool*, by John A. Hill. Three hundred seventy-four pages, well illustrated. A panoramic view of the range sheep and wool industry presented with the thought in mind that while the production of lambs and the growing of wool upon western ranges present two rather distinct sets of problems, the two are inseparable. Discussions of management practices are included, and recommendations are made for following methods which have proved most economical to range sheep operators.

### Try This On Your Boys

THE following story may serve as a device in teaching the meaning and value of money!—A traveling salesman registered at a small town hotel and declared his intention to stay for a week while working the surrounding territory. He left a \$100 bill with the landlord for safe keeping, saying that he would call for it at the end of the week.

The landlord, pressed for ready cash, used the \$100 bill in payment of his account at the grocery store. The grocer, in turn, paid the local doctor with the traveling man's paper money. Then the doctor took this useful \$100 back to the hotel and paid the landlord for a county medical association banquet given the week before. So, this bill, having paid the grocer, the doctor and the landlord, was carefully returned to its resting place in the hotel safe to await the call of its owner.

When the salesman checked out, he made no mention of the money he had left for safe keeping. "Have you forgotten your \$100 bill?" asked the landlord. "For the moment, I had," said the salesman. Then, as he put it away, he remarked, "It wouldn't have made much difference anyway, the thing is a counterfeit."

Who lost? What makes money valuable?

—Nebraska "Helpful Suggestions"

"My experience with agriculture teachers convinces me that you use good judgment in retaining the confidence of the pupil and his father. You doubtless keep in mind two things: first, any farmer who has been a success, in the largest sense that the term implies, is worthy of respect and consideration; second, it is hazardous to become dogmatic. What we feel assured of today is disputed tomorrow, and proven false the day following. Instill in your boys an open-minded quest for the truth. . . ."—E. F. Morris, Master Farmer, Iowa.

# Are We Demanding Too Much of the Teacher of Agriculture?

W. W. ADAMS, Supervisor of Agricultural Education, Near East Foundation, Salonica, Greece

ACCEPTING that our purpose in vocational agriculture is the training of young men for proficiency in farming, we who are interested in this field either as teachers or supervisors are continually faced with the need for analyzing the effects of our program of work and the methods whereby we propose to attain our purpose. There is no doubt that since the passage of the Smith-Hughes Act enviable progress has been made in vocational agricultural education, particularly in the application of project methods in teaching, in development of Future Farmer activities, and in the organization of evening schools for adult farmers, but there is reason to doubt whether the ultimate effect of our program on both teacher and student develops the desirable efficiency toward which we are striving. It has been my experience in teaching vocational agriculture and in observing other teachers, that behind the front-page news there are many problems that should be honestly accepted and conscientiously studied by both teachers and supervisors. Two such problems, for which there are few if any facts but some evidence, are the following:

Do the requirements of the present Smith-Hughes program of agriculture and its related activities demand too much of the teacher? Is there a trend toward quantity achievement rather than quality, as a result of the varied demands made of the teacher and the pupil?

### Requirements of the Program

The situation of the teacher of agriculture is that of one living in the community at local and federal expense, primarily for the purpose of teaching young men how to become better farmers. In order to meet this situation successfully the teacher must fulfill the requirements demanded by the law, the state board, and the local school. He is expected to conduct a well-rounded yearly program of work, including home project programs promoted on a long time basis, a farm shop program, classroom and field demonstrations, evening classes for adults, courses for part-time students, and Future Farmer activities. In addition to these duties, preliminary and final project records must be sent in; part-time school records, evening class records, records pertaining to F. F. A. activities, and numerous other requirements must be met if the teacher is to maintain a department of agriculture which will rank well in the community and with other departments in the state.

A second factor which demands additional time and increases the burden of the teacher of agriculture is the nature and type of the work. He must be a community leader and be able to conduct entertainments, plays, and debates. He must promote club programs and direct various community activi-

It has been left to a man in far away Greece to write an article on this challenging question. He gives us some things to think about. That alone would make it a good article.—Editor

ties. He must know something about everything; from treating babies for diarrhea to tempering cold chisels in the farm shop; from judging stock in the show ring to directing community singing at P. T. A. meetings. He must not only know about teaching, but must be a good teacher. He must know metal work, woodwork, and mechanics. He must be able to treat Madam Brown's roses for powdery mildew or Farmer Jones' pigs for screw worms; and the list goes on including jobs within and without the entire animal and plant kingdom. If the teacher has a half-time department, the situation is even more difficult. He may, in addition to his agricultural work and at the discretion of the superintendent and local school board, be molded into an Ancient history teacher, a champion football coach, or a director of Shakespearian plays. Thus it is that the nature and the requirements of the work demand a great amount of preparation and a corresponding amount of time.

### Quantity Versus Quality

Although it is unwise to assume in every case that variety of work results in a sacrifice of quality of work, it is safe to assume that in the majority of cases no one individual can do many jobs of a different nature and do them well. Many failures and partial failures in the work of teachers of agriculture, as well as in other professions, result not so much from inability to do the job as from a lack of time needed to thoroughly study the job. It is not enough for the teacher to know many "somethings" about his job, but he must know the "what" and the "how" about those "somethings." This is where the rub comes. With our varied program the average teacher of agriculture does not have time to prepare himself as he should be prepared in order to do the job or direct the doing of the job as it should be. Such a situation may have disastrous effects on the pupil, to say nothing of the effects on the teacher. It is not unlikely that the pupil will know a little about a lot of things but not enough about a few things. Many jobs, which if time permitted would be carefully thought out and analyzed, are superficially studied, and when the time arrives for the execution, the teacher depends upon his bluff or his initial resources, plus the responses of the group, to carry him through. As a rule insufficient preparation results in the blind leading the blind.

A second factor which grows out of lack of time on the part of the teacher is the ultimate effect upon the students.

In discussing this problem recently with a young man, a Greek Agriculturalist sent as a representative of the Greek Government to study vocational and agricultural extension methods in the States, the following criticism was made:

"I noticed while visiting various Smith-Hughes departments in different states and sitting in on different classes conducted with all-day students, a common tendency for the agriculture teacher to deal too superficially with problems in hand. Just at the time when the lesson should have become really interesting for the boys through careful analysis and adaptation to a local situation it was dropped, due to a lack of time, the end of a class period, or the necessity for starting other work. In all of the departments the boys were very busy doing things; primarily occupied with the *how*, and with seemingly too little or no time for the *why*."

If such an observation holds on an appreciable scale, it denotes at least one thing: a predominance of *doing* over *thinking*. The cause may result from one or two major reasons: Either the teacher does not have time to deal with the problems at hand in a thorough manner, due to the many different activities engaged in, or the limited training of the teacher results in a tendency to do quantity work at a sacrifice of quality. In either case the effect on the boy is the same. He may be deprived of that fundamental need, prerequisite to every profession, of training to think analytically. We have said much about the vocational purpose of our work, but is it not the teaching of the boy how to think, to analyze systematically his own problems for meeting later life situations that we are most interested in? As a former high school student of agriculture under the Smith-Hughes plan, I now recall the difficulties involved in trying to think constructively on certain project problems. I needed careful guidance plus frequent "urges," as did the majority of the class, to really think the problem through. Later on when I became a teacher of agriculture and was faced with the problem of promoting constructive thinking on the part of my class, I realized for the first time that careful thinking and analysis of problems in hand must first take place in the mind of the teacher if he would be in a position to wisely direct the mental activity of the boy; and second, that with the heavy demands made on the teacher of agriculture for promoting evening schools, community exhibits, judging teams, and numerous other out-of-school activities, such a procedure was exceedingly difficult to do as it should be done. It is accepted that in successful vocational teaching the analysis of a situation or problem in hand, based upon a personal interest and a local need, should be promoted sufficiently far to challenge constructive thinking on the part of the boy as a prerequisite to constructive action.





## The Complete Learning Experience

J. G. UMSTATTD, University of Minnesota

THE life of any individual is made up largely of a series of broad, complete learning experiences, each consisting of a more or less well defined whole, and each following a natural order of development. The number, type, and degree of one's complete learning experiences determine the richness of his life. The number of such experiences in a life is conditioned both by the individual's capacity to experience and by the influences which bear upon him. Likewise, these two conditioning factors of potential expression and stimulating agent play roles of varying importance in the type of activity experienced and in the degree to which the learning or expression is developed.

From earliest times the individual has run his gamut of total or complete learning experiences from birth and infancy to senility and death according to his capacity for experiencing, at all times restricted or assisted by outside forces which have thwarted or set free his latent possibilities. Men and women of great capacity and of favored surroundings have experienced rich and abundant lives; a few of genius have risen to the heights out of apparently adverse circumstances; thousands of the small have remained confined in their narrow lives amidst great opportunity; and those unfortunate in talent and circumstance alike, doubly doomed to darkness, have never been permitted to see the light of day. For each, life has consisted of those complete learning activities possible within the limits of his ability and opportunity.

### Two Characteristics

Two characteristics are inherent in the complete learning experience, whether it be of the great or the small. The close relationship of its component parts causes it to be unified into a complete whole. This entity is coexistent with the birth, life, and consummation of the purpose which gives it coherence and motivates its activities. Yet this complete whole is not isolated. On the contrary, it is intricately interwoven with preceding, concurrent, and succeeding learning experiences. It often receives much from the preceding, barter with the concurrent, and contributes purpose and direction to the succeeding.

A third characteristic of the broader learning activity is that it follows a natural order unless frustrated or discarded, or absorbed by related activities. The natural process begins with the birth of a desire or purpose which focuses the attention of the individual upon the desired end. He is driven by the purpose into a quest of ways and means for its fulfillment. He weighs and compares the various possibilities and chooses those of greatest expediency or

brightest promise. These choices weave themselves into a plan of action which when put into operation consummates the purpose and ends the learning experience with fruition.

The length of the learning experience is coincidental to the size of the purpose and to the degree to which fulfillment is desired.

### Hiawatha and His Bow

Hiawatha and his bow well illustrate a complete learning experience, if certain liberties may be taken with the story. The boy had often seen his elders leave for the hunt armed with bows and arrows and return with the deer. He had heard their tales of the chase and their praise of their arms. Gradually the desire to have a bow of his own took shape and eventually burst forth in a plea to Iago to tell him how to make a bow. The old warrior responded with facts and opinions from his own experience as the eager questions were fired at him. What kind of tree would yield the best wood, where might such a tree be found? What part of the tree should be used and how could it be secured, how carve the piece to fit one's strength and stature, where could the bowstring be obtained?

The boy weighed each answer in turn and compared the various possibilities suggested. His decisions on various points were determined in part by the accidental presence of certain materials, and in part, after a talk beside the campfire as he lay on his buckskin robe deliberating over what he had been told. As he learned these things and made his decisions, no doubt random attempts were made to find materials and try out the processes which had been described or demonstrated. These contributed to his final plan of action which on a given day was put into operation and resulted in the first bow he ever made entirely alone.

What a thrill came to the boy upon the consummation of that purpose! The gleeful whoop, the proud strut, and the ecstatic dance all bore evidence that stature was being added to the boy, that the chemistry of his blood was undergoing a profound change, that he was being charged with the urge to achieve greater purposes.

This complete learning experience of Hiawatha consisted of the desire or purpose, the quest for information, weighing of means, evolution of a plan, and putting it in successful operation to fulfill the purpose and achieve his aim. While following this through, he grew in body and in mind, and felt the thrill of achievement. He lived.

For many centuries man has learned in some such order—eagerness of purpose, inquiry, deliberation, planning, and

testing his plan. Few realized the order and fewer still, if any, consciously sought new experiences according to the pattern. It fitted his nature, and man followed it without thought of the stages in the process.

Herbart was the first modern to retreat to his Sinai and write down what he had observed. From his tablet came the clear-cut principles popularized as the Herbartian steps of preparation and aim (growth of Hiawatha's desire for a bow), presentation (Iago's counseling), comparison and abstraction (which wood was best and why), generalization (the decisions which, together, constituted his plan of action), and application (making the bow). In analyzing the process and defining its parts, Herbart made a valuable contribution to learning procedure. He supplied the framework for a philosophy of educating.

About two generations later a second enunciation of the natural steps of the learning process was made by Dewey in his five steps in a complete act of thought, the first two of which, he states, might well be merged. These steps coincide with Hiawatha's experiences: a felt difficulty and its definition (Hiawatha wanted a bow and resolved to get it); suggestion of possible solutions (advice from Iago); development of the idea (decisions and evolution of his plan of action); verification by trial (constructing the bow).

### Morrison's Re-statement

The next re-statement of the series came from Morrison. Here again the vital processes are readily discernible: exploration or the awakening of interest and purpose (the urge grew and burst into a plea to Iago); presentation (by the classroom teacher instead of by Iago); assimilation (deliberation over advice given); organization (marshalling the decisions for action); recitation (the test of mastery, with the teacher's knowledge instead of a product as the criterion). Again is outlined the process of growth, the span of a complete mental process, a total learning experience.

This age-old process, time-honored and mellowed, occasionally recast in synonymous terms, is the most effective of learning procedures. It seems to fit the gearing of the human mind.

True, it is not operative in all present-day classrooms. This situation is in large part the result of the teacher's inability to visualize the process in its entirety and to act accordingly. The chief difficulty arises from failure to use the first and last steps of the process, from a total disregard of the potential purposes of the learner, and from failure to afford him opportunity to use what he has

The modern Hiawatha is forced to learn how to make bows he cares nothing about, and makes none of them. It is like compelling a child to dress up on Sunday's best and sit idly at home. To use alone the three middle steps and to call that education is the height of stupidity. To amass supposed facts and opinions that have no relation to one's interests or purposes does not cause him to grow. To mull over such meaningless, lifeless material is stupefying. And of what value can be the decision or generalized idea that is assumed to stillbirth? Without the initial step of purpose the process can have no life, however much artificial respiration may be applied. Without the final step of fruition the thrill of ecstasy can never be known.

Small wonder there is criticism of our teaching. It so often gets out of mesh and endangers the gears. We lose sight of how the machine works, and in our blindness tear it to pieces. Worries, phobias, complexes, frustrated purposes, emotional stresses, dementia praecox, what not—these in the name of education!

### No Need for New Schools of Theory

There is no need of new schools of theory. By over-stressing one part of the process at the sacrifice of others, new moves do more harm than good. It is true that purpose should be stressed, but when the process is top-heavy with purpose it soon degenerates into a fantastic farce in which petty whims flit about in unorganized attempts at realization. Likewise, expression should be stressed, but to overstress it brings poorly conceived and ill designed activity, aimless waste of effort, and results in personalities disintegrated because of the absence of deep and binding motives. Overstress of purpose brings a butterfly sort of activity, light and ethereal, lacking ballast and power, depth and permanence; overstress of expression results in abortive monstrosities of intellectual life which turn upon and destroy the objects of their self-deluded protagonists.

The catchwords and evangelism of such new schools soon lose their attractiveness and charm. Their programs either settle down to normal activity or die out as the natural result of undue emphasis or unwise stimulation. Their existence is as a ripple upon the deep and broad stream of educational theory, caused by too great atmospheric pressure or warm air currents.

The solution lies in a greater perspective on the part of the teacher as he views the learning process. All steps in the process have their place. Too little emphasis or too great stress upon any one distorts the entire learning experience. Regardless of his relative ability, the pupil must be given the opportunity to acquire worthwhile purposes, to be impelled by those purposes into a quest of means for achieving them, to deliberate, to derive his plan of action, and to put his plan into operation as an emotional outlet in consummation of his purposes—he must live through the complete learning experience. For each individual pupil, the teacher must view learning whole.

### Agricultural Bulletins

- Economic Trends Affecting Agriculture. 1933. (Agriculture Department unnumbered bulletin.)
- Feeding Dairy Cows. Revised, 1933. (Farmers' Bulletin 1626.)
- Milk for the Family. 1933. (Farmers' Bulletin 1705.) This bulletin supersedes Farmers' Bulletin 1359, "Milk and Its Uses in the Home."
- Milk Goats. Revised, 1933. (Farmers' Bulletin 920.)
- Duck Raising. Revised, 1933. (Farmers' Bulletin 697.)
- Effectiveness of the Swine Sanitation System in the South. 1933. (Technical Bulletin 374.)
- Disinfection of Stables. Revised, 1933. (Farmers' Bulletin 954.)
- United States Grades, Color Standards, and Packing Requirements for Honey. Revised, 1933. (Agriculture Circular 24.)
- Orchard Insect Pests of the Pacific Northwest and Their Control. 1933. (Agriculture Circular 270.)
- The Oriental Moth and Its Control. 1933. (Agriculture Circular 277.)
- Rough-Headed Corn Stalk Beetle in the Southern States and Its Control. Revised, 1933. (Farmers' Bulletin 875.)
- Use of Winter Legumes in Southeastern States, 1933. (Technical Bulletin 367.)
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- Strawberry Diseases. Revised, 1933. (Farmers' Bulletin 1458.)
- Harvesting and Storing Ice on the Farm. Revised, 1933. (Farmers' Bulletin 1078.)
- Farm Plumbing. Revised, 1933. (Farmers' Bulletin 1426.)
- Bang's Disease (infectious abortion). 1933. (Farmers' Bulletin 1704.)
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- Harlequin Bug and its Control. 1933. (Farmers' Bulletin 1712.)
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- Methods and Costs of Husking Corn in the Field. 1933. (Farmers' Bulletin 1715.)

### Teaching Related Science

KENNETH BAKER, Sudlersville, Maryland  
RELATED sciences are new to the majority of high schools in Maryland. The movement is still in the experimental stage. This is our second year for related science, although we feel that we are gradually attaining a clearer knowledge and understanding of the most useful and directly helpful fundamentals.

Related science or related biology is the only valuable foundational science for the average high school student. Why? Because it deals directly with his surrounding rural environment. It establishes a better knowledge of the numerous things with which he is coming into contact in daily life. It enables him to feel the importance of nature and natural environment. It will enable him to know and appreciate those things he is going to need as foundation material in future living, regardless of the vocation he may pursue. I am being more convinced of this every day, de-

spite the fact that this work is still in its infancy.

The first and most important fundamental to keep in mind is the necessity of giving to the student what is going to be most helpful in his future life. After all, we are not only teaching a boy certain principles, but rather, we are building our future civilization by equipping him with those qualities and fundamentals necessary for him to face the increasingly important problems of life with assurance and a confident attitude.

To quote from an article written by Charles R. Allen—"Nine-tenths of the trouble with youngsters in school is that they don't see any sense in what we are trying to teach them." This is largely our fault because we do not put enough effort and time in preparation before we try to present a subject.

I am going to give the units I try to cover in the year I teach animal husbandry. A comparable set of units is used when I teach plant husbandry. My science classes are a combination of academic and vocational boys, all coming from the rural districts.

When teaching animal husbandry in the agriculture class, I cover the following units in my science class.

1. Comparing the anatomy and physiology of man with those of a chicken and of a dairy cow
2. Comparing the digestive system of man with that of a chicken and of a dairy cow
3. Comparing the respiratory system of man with that of a chicken and of a dairy cow
4. Comparing the circulatory system of man with that of a chicken and of a dairy cow
5. Comparing the excretory system of man with that of a chicken and of a dairy cow
6. Comparing the reproductive system of man with that of a chicken and of a dairy cow
7. The cell as a basis of animal life
8. The formation of a hen's egg
9. Locating the germ in a fertile egg
10. Candling eggs at different stages of incubation
11. The basic principles of nutrition
12. The different feeds
13. The constituents of feed
14. Comparing manurial values of feed stuffs
15. The principles of farm housing
16. Unity among living things
17. Interrelation of living things
18. Heredity and its effect upon living things
19. Classifications based upon relationship
20. Stimulants and their effect upon living things

The little knowledge that I have on teaching related science can possibly be summarized in these few statements:

1. Be practical.
2. Stress visual instruction.
3. Use every-day illustrations and examples.
4. Tie up with home surroundings and natural environment.
5. Carefully plan and outline units.
6. Know mental capacity of members of the class.





# Supervised Practice



## A Philosophy Of Supervised Practice

H. M. HAMLIN, Iowa State College

FOR some time members of the staffs of the Department of Vocational Education of Iowa State College and of the Iowa State Board for Vocational Education have been attempting to formulate a statement of their views regarding supervised practice at the high school level.



H. M. Hamlin

The following statement, while representing more largely the views of Professor Lancelot and myself than of other members of these staffs, is approved in general by them. It has also been presented at the sectional meetings of Iowa teachers of vocational agriculture during the Fall of 1933, and the criticisms of those teachers have been considered in the revision which follows under 13 heads.

1. *Application of new knowledge is normally to be expected.*

It should normally be expected that what is taught in the school will be used outside the school. Else, why teach it? Children normally like to turn their new knowledge to some practical account. A supervised practice program, then, should involve everything taught in the classroom.

Why do not all of the children in our schools follow their normal tendency to use, in all of their possible applications, the new things they have "learned" in school? We recognize in many schools instead a predominance of "lesson learning" over real learning. Things are "learned" for school purposes only to secure grades and credits and eventual graduation. There is little thought of carrying them over into practice.

A good part of the job of the teacher of agriculture in connection with supervised practice is to clear away the obstacles to the normal functioning of new knowledge. What are some of these?

First and basically, there is a false conception of learning on the part of the pupils, gained largely from their association with teachers. We do not, anywhere except in a school, consider that a thing is learned unless it can be used and is used habitually in all appropriate out-of-school situations.

Second, we must break down any barriers between the home and the school and between the community and the school, which thwart the normal application of our teachings. No amount of formal supervising can overcome a basic antagonism toward the school or the teacher. On the other hand, with good home and community relation-

ships, large amounts of our teachings get applied without any particular effort on the teacher's part to bring it about.

Third, we must teach so well in the classroom that it is easy for the pupils to accomplish their own carry-over into out-of-school affairs. Our instruction must be practical, applicable. We must lead our boys into clear conceptions of the things they are to do. We must teach so interestingly and impressively that what we teach is retained for application at some later time, if immediate application is impossible.

2. *Application should be voluntary; it should not be forced.*

We go very easily from the proposition that application in practice is normally to be expected to the other proposition that it should be voluntary, that it should not be forced. I find from a partial canvass of our best teachers that projects are no longer mentioned by them as requirements in enrolling boys in vocational agriculture. To be sure, they try to get boys who have opportunities for home practice, but they rely on their ability as teachers to interest them in using these opportunities, instead of setting up a requirement that they must use them.

We sometimes give our boys a distorted notion of the whole learning process by separating the project from the rest of the school program and giving extra credits for it, or by failing a boy because he has not completed a project. I agree that a boy without some sort of a practice program should fail, but the reason I would give is that through his failure to apply his knowledge he has exhibited the principal characteristic of a non-learner. He deserves to fail, not primarily because he did not carry a project of a particular type, but because he had evidently learned nothing from his course in agriculture. A formal requirement for a project can be met rather easily, and it may or may not indicate real learning. A requirement of real learning, which involves voluntary application of as much as can well be applied, is a higher and sounder standard.

3. *We should differentiate between things which are easy and things which are hard to apply, and give most of our attention to the latter.*

Most of the things we teach in vocational agriculture are not hard for an individual of normal mentality to apply without much assistance beyond good classroom teaching. The things which we have picked out for emphasis in our supervised practice programs largely fall in the class of those easy to apply. Until recently we have largely left alone

the phases of our program which are hardest to apply. These are, I think, the more complex principles of farm management, whose application involves considerable reorganization of the home farm, and the principles of leadership and cooperation in agricultural affairs. It is clearly harder for the ordinary boy to learn to become a leader or even a good member of a group than to learn to grow a pig; much practice under guidance is required.

The time we have to devote to the supervision of practice is limited, and the amount of supervision an individual pupil gets will probably be less in the future than it has been. It is increasingly necessary, then, that we use the time we have to help our boys in the ways in which they most need help.

4. *Supervised practice is not confined to a project or a small set of projects.*

I have indicated that supervised practice should, ideally, be as broad as the course of study. A corollary would be that, during the entire course in high school, it should be as broad as the home farm. If these are our standards, it is a travesty upon supervised practice to confine it to a corn project or a sow-and-litter project.

The program of supervised practice which seems to me to meet these requirements most nearly is the Minnesota program. It has been developing there for many years with ever increasing favor. Under this plan, the boy, his teachers, his parents, and other members of his family get together on his entrance into vocational agriculture and plan the best possible tentative program for improving the home farm during the next few years, indicating the part the boy may take. As the boy proceeds in his school work, new opportunities for improving the home farm are seen. The practice program therefore grows and changes continually throughout the high school period. Sometime before graduation, the boy is expected to keep general records of this farm for one year, which form the basis for a comprehensive long-time program to be followed after graduation.

5. *Supervised practice is not confined to the home farms.*

If we assume that practice is to be provided in relation to everything we teach, we are led to conclude that not all of it can be given on the home farms. We are coming to be more and more concerned about training boys for effective participation in agricultural organizations and institutions.

We have launched the Future Farmer movement primarily to provide practice in cooperation and leadership. We are using class and cooperative projects of

many types. We are encouraging our boys to engage in community activities. I wonder whether we are thinking of these activities as parts of our supervised practice program. I think it would help us if we were to do so. Unless we do, we are not likely to see their close relationship to our class work. Certainly we should work out in class as definitely as we can the principles which we are to follow in our extra-curriculum and community activities. If we do not, these activities may have little educational value or they may educate in the wrong direction. For instance, we should be able to work out in class the characteristics of a good officer for an organization and we should follow our standards in selecting the officers of our Future Farmer chapters. It is true that the principles of social science are not all as clearly defined or as positive as those of natural science, but there are many which can be isolated, taught, and applied.

We need very much at this stage to develop new types of projects calling for group activity and emphasizing phases of rural life other than agricultural production. We have revised our courses of study considerably to emphasize social and economic phases, but these changes have not shown up as fully as they should in our practice programs. Our practice work is more evident to the community than our classwork; hence we still convey the impression through the best publicity device we have that we are still preoccupied with production.

6. *The values of supervised practice are not exclusively vocational.*

It is important that we see to it that the one-third to one-half of our boys who do not farm get something of value from our courses. Sort as we will, we can never eliminate this group from high school classes in agriculture. We must remember that the boys we teach in high school are young, unsure of their futures.

We should bear in mind too that agriculture is one of the richest subjects of general education. It has a large content of its own and it involves in addition the applications of a dozen sciences. It is too bad to narrow its possibilities as a subject of instruction by restricting it to its vocational aspects.

The supervised practice program should be used to develop the boy in all of the ways in which he needs development. We can use it to teach some of the things most essential to a useful and satisfying life.

It offers one of the best opportunities we have to strengthen desirable personal traits, such as initiative, sense of responsibility, perseverance in the face of difficulty and failure, regularity in the performance of routine thrill, the ability to work with others, the ability to think straight and to plan thoroughly and well.

It may be a means also of acquainting the boy with the fundamentals of good managerial and business practice, applicable in all lines of business, including budgeting, accounting, banking, the use of credit, insurance, buying and selling practices.

It is being used increasingly to acquaint the boy with the fundamentals of cooperative procedure: parliamentary law, presiding at meetings, committee work.

It is a means of strengthening decidedly the interest of the boy in farming and rural life. Interests thus acquired are not likely to be sloughed off, even though he leave the country. And it is going to be of strategic importance to have a considerable part of our city population of the next generation with such rural interests, as we try to work out together a unified national program and policy for agriculture, for, since they dominate in numbers, city people are likely to have more than farmers to say about the nature of the farm program which prevails.

7. *Supervised practice should be so managed that home and family relationships will be improved.*

It is clear that the home practice of an individual boy involves relationships with all the other members of his family. At first we were inclined to deal only with the father. Later we decided that the mother is an important member of the family and should be taken into our confidence. We are beginning to see relationships to the other children. For instance, when we ask that one of the children be set up in business for himself, with a private income, are we expecting that all other members of the family will be similarly treated, or are we asking a special favor for our protégé? If the latter, have we any business doing so?

The facts are that we in vocational agriculture have too often overlooked the status of the boy as a minor member of a family in which the maintenance of wholesome, cooperative relationships is infinitely more important than anything we may teach the boy about agriculture through a home project. Perhaps it has been because we teachers have commonly been young men without families. As we get older, we shall doubtless sense parental and family rights and relationships more clearly.

We talk about training our boys in cooperation. Well, the home and the family at their best are the most effective agencies the race has developed for training real cooperators. Nothing we can do in schools substitutes fully for the type of training in cooperation a good home situation affords.

My plea would be that we consider the home farm as a family enterprise and that, as we work with the boy, we encourage him in every way to work with the rest of his family, submerging his interests in theirs, instead of setting him up in a competitive business.

This does not rule out the individually owned and managed project. It does suggest that such projects occupy a relatively minor role in a supervised practice program. It implies that, when such projects are organized, they be set up to contribute to the general good of the whole family. We may use such projects to try out new practices under consideration for use on the farm as a whole. Their main purpose may be to provide breeding stock or seed stock for the entire farm. Or they may be set up primarily as a means of experience

and education for one member of the family, so that he may later share more effectively in the entire farm and family enterprise. It is not so much the nature of the practice work undertaken as the spirit in which it is done that determines whether we are complying with the standard I am setting up with respect to family relationships.

8. *The supervision of practice affords an opportunity and implies a responsibility for parental education.*

Our schools are recognizing increasingly an obligation for parental education, as one of the most important aspects of adult education. At present the teacher of agriculture has more contacts with the parents than any other teacher; he is the only teacher who gets into the homes to any considerable extent.

Some of our leading city schools have employed visiting teachers to get into the homes and to relate the school and the home more effectively. In rural communities, the teacher of agriculture is the visiting teacher. Supervised practice in agriculture affords him an excuse for visiting the homes, but if he is a real educator, he sees opportunities for service far beyond the borders of his specialty. He will go as a representative of the entire school and not merely of the agriculture department. He will use his visits as a means of relating the school as a whole to the home, as a means of interpreting the boy to his parents and the parents to the boy, as a device for stimulating a more cooperative family relationship and for helping the parents to use their opportunities more intelligently in the development and training of their children.

All of us who grew up on farms realize the many advantages of farm and country life during childhood and adolescence. We recognize, however, that not all farm boys profit equally from their farm advantages and that not all farm parents know how to use farm life for the best development of their children. In spite of the unusual opportunities for rearing children healthfully on the farm, we still have our quota of sickly, under-developed farm children. In spite of the splendid opportunities the farm affords for developing strong, resourceful, self-reliant men, too many of our farm boys come through to manhood without these desirable characteristics.

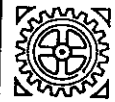
In spite of the opportunities for delightful and wholesome recreation which the country affords, few rural communities are without vicious resorts which cater to rural youth starved for recreation and social life. Parents need help in making the farm and community contribute what it may to the best development of their children.

9. *The practice program should provide fully for individual differences among the boys and their home farm situations.*

One of the greatest advantages to be claimed for our practice program is that it enables us to provide for individual differences likely to be overlooked in classroom teaching. It is desirable that some parts of a practice program be uniform for all of the boys because

(Continued on page 107)





## Procedure in Determining the Scope and Content of a Farm Mechanics Course

L. M. ROEHL, Department of Agricultural Engineering, Cornell University

THE first thing to do in making out a course of shop work for the boys of a community is to find out by a survey or visits to farms the kinds of work with tools and machines that the farmers find it necessary and profitable to do.



L. M. Roehl

The second step is to find approximately the relative importance of each kind of work in the community, and distribute the total time that can be given to the work at school so that the boys will get training in each kind of work according to its worth.

The third step is to select shop jobs or experiences in each kind of work, and make arrangements for their execution.

The first point is partly determined by the kinds or types of farming found in the territory represented, namely, general, dairy, fruit, poultry, stock ranch, grain, or truck. Some fundamental skills in mechanics are common to all, but their application may be quite different on a general farm and a special farm. Thus the content of the course is partly determined by the type of farming for which it is planned to qualify.

If several types are found in the community, it is necessary to make out the course as thus determined and somewhat modify the work of the individual student to train for the kind of farming which he chooses to pursue.

This is also partly determined by the blacksmith service that exists in the community. If there is a blacksmith and the indications are that there will continue to be during the farming period of those attending school, it may be better farm management to support him by taking machinery repair work to his shop than for the farmers to do it at home. In most instances, however, it will be found that the situation was stated by the farmer who said, "There are only a few blacksmiths left for miles around, they are all old men, soon they will be dead, and then where will we be at?"

It is clearly apparent that the farmers now in training will need to do much of the work at home that the past generation of farmers could better hire done. Therefore, the shop should be equipped with a forge, and the shop course include the overhauling of farm machinery. It takes skill, judgment, and

some ingenuity to repair machinery, and the shop course should bring the boy and machines together in a shop equipped with an outside door big enough to admit the machines and with natural and artificial light and with the tools and repair equipment necessary to do whatever needs to be done.

The following outline is not presented as an example for the division of subjects and time for all schools. It is only a means found helpful in making an outline for the work in one community.

If any one of the 16 kinds of work here listed does not have a place in the community, it, of course, should be omitted. On the other hand, if there is any work in the school territory that is not listed, it should be included and given time as determined by its importance.

The kinds of work are not listed in their order of importance. What is important in one community may be relatively unimportant in another.

Suggestive Course in Shop Work of 160 90-minute Periods for Departments of Vocational Agriculture in General Farming Communities

	I	II	III	IV	Total
1. Carpentry and woodworking	20	15			35
2. Saw fitting	5	3			8
3. Soldering		3			3
4. Cold metal work	2	2	2		6
5. Tool sharpening	4	3	2	2	11
6. Forge work	3		7	5	15
7. Harness repair			6		6
8. Rope work	3	2	1		6
9. Concrete work		6			6
10. Field machinery repairing			11	7	18
11. Power machinery and power transmission			5	5	10
12. Plumbing and water supply	3		6		9
13. Leveling and drainage			6		6
14. Electricity on the farm			9		9
15. Farm structures			6		6
16. Household mechanics		6			6
Totals	40	40	40	40	160

The total time allotted for the work during the four years at school may also vary in different states and communities.

It will be noted in the outline that some kinds of work are offered in the first year, some in the first two, and some in each of the four years. Some men plan to give all the shop work in

one year. It seems better to spread it over the four years because shop work is not a study complete in itself. Most of it is work that supplements and is part of the other studies and should be carried on when the other studies are being made. The time to draw the plan of a dairy barn and poultry house is when animal husbandry subjects are being studied.

Some kinds of work are better suited to third and fourth years, when the boys are larger physically and have better judgment. And so it is advised that division of the work be made as determined by the boys' physical and mental ability.

It is highly desirable to have the advisory committee of farmers aid in making out the course or outline. There may be quite a difference between an outline made out by a teacher who has a special interest in some kind of work or who has specialized in some work at college and an outline suggested by farmers of the community as determined by problems in mechanics that confront them.

In some instances it may also be necessary to modify the course as determined by the shop space and equipment that the school board can furnish. If the shop work needs to be conducted in a basement room with no outside door and no chimney, there is little chance to do forge work and repairing of farm machinery.

In that event it seems desirable that two courses be made out and submitted to all concerned: One course as it should be with proper space and equipment, and the other as determined by facilities at hand. It is then the teacher's business to have at hand the plan of a shop and its equipment as it should be to carry on the program satisfactorily, and place it in the hands of the administrative officers who in turn will be in a better position to deal with the problem when time for such action arrives.

It is also desirable to have the boys have a hand in making out their shop course. One job for each boy is to make a list of the tools on the home farm and report their condition. To have each boy bring in the tools from the home farm and learn how to fit them in the school is as valuable a part of the shop work as anything he can do. Any user of tools may start with them in good condition, but they won't be that way long, and unless he can fit them but little work will be done with them. Hiring of tools fitted is one of the things generally postponed. On the other hand, if one can fit his own tools, he will experience the pleasure that attends the

use of tools in good condition and accomplish the work for which they were obtained.

Farm tools and machinery conditioned and returned home by the boys contributes materially to the good standing of the shop course and the teacher in the community.

Likewise it should be the work of each boy to bring in harness for his harness repair training and machinery for his training in that work. By having the boys take a part in that way, they are more likely to take an intelligent interest in the work, and the shop course is more likely to become a training school than if he does not thus have a part.

Under the heading of household mechanics may be included the repairing and refinishing of furniture and other household equipment not included under plumbing or electricity.

As one analyzes the outline suggested, it may appear that not enough time has been allowed for some types of work. For example, farm structures has been allotted but 6 hours. Obviously, that is not enough time to develop a high degree of skill. However, the student can be introduced to the subject and given sufficient information so that he can plan and erect the simpler structures and will know how to obtain plans and assistance in erecting the more elaborate structures in case the need arises.

One should keep in mind that the central idea of the shop course is to teach the boys how to refit and recondition farm tools, machinery, household equipment, and farm structures, at home with their own hands and with the tools and equipment which the average farmer finds it profitable to own.

The teacher who succeeds in obtaining these objectives may consider his work a success and himself a valuable asset to the school community.

### A Philosophy of Supervised Practice

(Continued from page 105)

such an arrangement affords good opportunities for practice in cooperation. But the program as a whole should allow for diversity of interests and should give the boys opportunities for individual self-expression. This will be the case if a plan similar to the Minnesota plan is followed.

10. All normal opportunities for cooperation should be utilized.

We are using our projects more and more as means of providing training in cooperation. Some other states have used class-owned projects on or near the school grounds to provide group experience. We have chosen in Iowa to use more natural and normal teaching situations. Iowa farmers do not concentrate their livestock in one central place and care for them cooperatively. They keep them on their own farms, but they find numerous ways of working together advantageously. That is what we do in our project programs. Boys who are growing hogs find it advantageous to own boars cooperatively, to buy some of their feed and some of their equipment together, to maintain a mutual insurance company, to sell

their surplus breeding stock at a cooperative sale, to keep comparable records, and to meet together to discuss the methods they are using and the results they are getting.

There are numerous other normal opportunities for practice in cooperation in the group life of the community. There are fairs to be conducted, forums to be led, agricultural associations of many types to be maintained, social and recreational events in which to share. Full advantage should be taken of these.

11. Practice should be so supervised that it will render the boy increasingly independent and self-reliant.

There is a type of supervision which renders the individual supervised increasingly dependent on others for supervision. It is easy to assume too much of the responsibility. We have sometimes thought that it would be better for the educational process if teachers were taken out of the reach of their boys two or three months each year when their projects are at the most crucial point. This would require the boys to stand on their own feet and to plan thoroughly in advance for the emergencies they may meet. It may not be possible with our younger pupils, but we should certainly start the weaning process early.

We have been led astray in our thinking about this problem by one of the stereotypes of the early days of vocational education, the "learn to do by doing" formula. As a matter of fact, we teachers are mainly responsible for seeing that our boys learn to do by thinking. We are supposed to see that they make their mistakes and correct them in their project plans, instead of making them on the job during the summer. If the boys have done their own thinking and enough of it in making their project plans, if the project is well started and has been successfully under way for several months, and if satisfactory home relationships have been developed during the school year so that the boy can get the help normally to be expected from the other members of his family, there is probably not a whole lot a teacher of agriculture can do with respect to the projects during the summer without encroaching upon the initiative and responsibility of the boy.

12. The costs of supervising practice must be kept at a minimum.

I have indicated that less supervision, of a certain type, is better than more supervision. This is particularly true when we consider the element of cost.

In the early days of vocational agriculture, the prevailing idea seemed to be that the teacher who traveled the most miles and spent the most time with his boys on their home farms was the best supervisor of practice. We do not now believe that this standard is right; we are sure too that it is financially prohibitive. Individual instruction in itself is so costly that we have almost none of it in our schools, relying on group instruction instead. Recently we have been increasing class size decidedly, expecting the teachers in some of our schools to handle 40 to 50 pupils at a

time. But in supervised practice in agriculture we have not only individual instruction but much time and expense in travel from one individual to another. Obviously we are going to have to keep such individual instruction at the very minimum required for the success of our program.

I do not know what that minimum is. One of the most successful supervisors of practice Iowa has ever had, Mr. A. B. Kirk of Vinton, states that during his first years in the very large Vinton community he traveled 8,000 to 10,000 miles yearly. After he had won the respect and good will of the parents and the community generally, he was able to reduce his travel to about 2,000 miles annually. In spite of his reduction in mileage, the scope and effectiveness of his practice program grew year by year.

The new type supervisor of practice will have to be, first of all, an organizer. He must be able to get things done largely through working with groups. He will not have much time to spend with individuals. Our day classes are increasing in size. We are adding part-time and evening classes. We shall probably be taking more time off during the summer as time goes on, to secure our much neglected graduate training, if for no other reason. With the development of the new, unaided program in agriculture in many Iowa schools, many vocational teachers will transfer to them, serving as superintendents and teachers of rural life subjects. When they do, they will have to learn to get results out on the farms and in the community during nine or ten months of employment.

13. The practice program in vocational agriculture should be easily distinguishable from the 4-H Club program.

If the general point of view presented here were accepted, there should be no danger of confusion of the vocational and club programs. A club project might be a part of a supervised practice program, but it would be a small part. Probably the better arrangement is the one agreed upon by the extension and vocational forces in the state, that during the high school period the boy is to give his allegiance to the Future Farmer program in those communities having chapters.

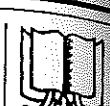
Teachers of agriculture have a great opportunity in working out in practice the implications of these principles. Enough has been done already to indicate that they are practical and desirable principles, but the full range of their application is not yet apparent. I shall look forward with great interest to the ingenious new types of supervised practice which are certain to evolve as we shift our viewpoints as indicated. I am convinced that, if we work along these lines, we shall make ourselves materially more useful to and more highly respected by those whom we serve.

See editorial page of the December issue of this magazine for complete statement and prices on our new booklet, *Contributions of Ten Leading Americans to Education*.





# Evening Schools



## Evening School Work in the Pleasantville Section, New Jersey

H. A. MILLER, Instructor

*Editor's Note: Mr. Miller, like the other teachers of vocational agriculture in Atlantic County, New Jersey, spends all of his time in evening school work. He has made a real contribution to his community during the years he has been serving the farmers.*

**D**URING the past 14 years the instructor of the Pleasantville section has had an excellent opportunity for observing the changing conditions of the agriculture in his section and thereby formulate the program of instruction each year to meet these conditions. The number of poultry farms in the section has increased from some twelve or fifteen in 1919 to approximately one hundred and fifty today. As new poultry farms have sprung up, the instructor has had an opportunity of guiding the progress of these men.

The new practices as worked out at the experiment stations have been disseminated by means of evening class instruction. This applies to truck growers as well as poultrymen. Truck farming has been somewhat on the down grade because of the economics of the section. Such new innovations in truck farming as irrigation, plant growing, fertilization, and disease control have occupied the greater part of the instruction.

With this general information in mind, it is possible to state the program of work among the poultrymen during the past and present year. In 1920-1922 artificial lights were experimental, but their value in increasing production was soon recognized. This greatly changed the period of the year when production could be advanced to take advantage of the higher egg prices from September to December. The instructor recalls the many objections to be overcome in getting this practice operative on the poultry farms of the section. Today there are practically no poultrymen who do not believe in the use of artificial lights in controlling production.

Then feeding practices became an important item. As egg prices receded each year, the margin of profits became smaller until poultrymen became more conscious of the necessity for lowering costs of production. As feed constitutes about 60 per cent of the general expenses of the poultry farm, this seemed the most natural expense to curtail. The instructor has been occupied each year in working out ways and means of meeting this condition. New formulas have been worked out, more efficient feeds have been used, and substitutions made to lower costs.

Another important factor was the necessity for increasing the yearly production of the birds through breeding

practices. In this line the vocational schools can possibly be given credit for 75 per cent of the results along this field. Assistance in culling breeding stock, trapnesting birds, securing pedigree cockerels, and the keeping of records to determine the flock average have been the work of the instructor. It can safely be said that the standard of poultry in Atlantic County as a section would possibly rank very high.

In the field of disease many practices and much new information have been offered to the poultryman. The instructors have been the connecting links between the experimental work of the colleges and the practical work in the field. Control measures for intestinal parasites, lice, chicken pox, roup, bronchitis, etc., have saved many dollars for the local poultrymen. It seems hard to estimate the amount of saving in the elimination of chicken pox through inoculation. Today almost every poultryman recognizes inoculation as an important practice on his farm. Many other examples could be cited of the progress of the work under vocational guidance.

The program of work for the coming season includes these major points:—

1. Increasing production averages through better breeding stock and securing of chicks from good breeding sources.
2. Lowering production costs through more efficient feeding methods, better and cheaper formulas.
3. Lowering the mortality on each farm through closer control of disease problems.
4. Elimination of all uneconomic practices and disposal of all unprofitable stock.
5. Improvement of quality and size of the eggs.

These principles will be worked out in the classes to be held in the sections of Pleasantville, Absecon Highlands, McKee City, Port Republic, and Bargaintown.

Small unit courses will be held in these sections to deal directly with the business problems of each poultry farm.

The instructor of the Pleasantville section has been the Market Master for the Farmers' Retail Markets in Atlantic City. These markets have sold their products direct to the housewives, thereby saving the difference in price between wholesale and retail. In many years this value has represented thousands of dollars. This work will be continued and increased each year as the demand for such type of marketing increases. —Atlantic County Vocational Bulletin, New Jersey.

"Keep your mind on the great and splendid thing you would like to do, and you will find yourself unconsciously seizing upon the opportunities that are required for the fulfillment of your desire."—Tony's Scrap Book.

## F. F. A. Chapter Gives Purebred Gilt to Evening School Winner

L. L. COLVIS, Chester, Illinois

**I** AM writing this article especially for those who were a little nervous about offering an evening course this past year. It is from the viewpoint of one who was pretty much afraid of the proposition, and then found that the fears are a great deal like those of a man who shivers on the edge of a swimming pool afraid to plunge in. I believe the evening school is the one thing that most of us want. Naturally, our plan fits into our particular set-up, and very likely would not work in all places. But, here is the system we used.

The boys in this F. F. A. chapter are considerably interested in purebred hogs. Since they had been selling a few to the men in the community, the chances of an evening school on swine looked good. The boys immediately saw the possibility of selling more breeding stock, if we could get more men interested in good hogs. The boys with hog projects got together, and decided to offer a purebred gilt to be given away at the last meeting, to some man or boy not enrolled in high school. I was to figure out a way to offer the gilt as a prize. The boys shared the expenses and thought it was good advertising. Just how the pig was to be given away was not explained until the first meeting. We decided to hold a contest for it. At the end of each meeting, a list of statements was given each person. They were to be answered as true or false. In other words, we held an examination each meeting, covering any work that had been previously covered. One hundred of these questions were given out in all, and anyone who missed a meeting could not make up the questions he missed. At the last meeting each person was given back his papers, and the one who answered most of the statements correctly was declared the winner.

Most men who came to the first meeting, came to every one. They were very attentive, because quite a spirit of fun and rivalry developed over the "exams." Of course, I was careful to explain in the beginning that a great deal of it was luck, and could not be considered too seriously as a test of one's ability. I also tried to give statements that were unquestionably true, or unquestionably false. I found that farmers are not afraid of questions. They declared emphatically that the contest made the meetings more interesting. Several of the boys have already sold pigs, due to this activity, and I feel certain that the department is a little stronger because of it.—The Fan Mill, Illinois.

He who seeks only for applause from without has all his happiness in another's keeping.—Goldsmith.

## Short Courses for Farm Boys of Racine County, Wisconsin

E. A. POLLEY, Superintendent, Racine County School of Agriculture, Rochester

**S**HORT courses in dairy herd improvement and in spray ring operation were offered during the past winter by the Racine County School of Agriculture at Rochester, Wisconsin, to supplement the 8-weeks winter short course given each year to out-of-school farm boys. Each course lasted for two-weeks, classes running daily from 9:30 to 3:30.

The course on dairy herd improvement opened December 12 and closed December 23. Twelve young men were enrolled, ranging in ages from 18 to 33. The boys collected a set of individual samples from a different herd each day. The forenoon was spent in testing these samples and computing the individual records for each cow. The afternoon was spent in computing rations and various other phases of dairy activities. Two periods were spent in training in lactometer work as a means of locating milk adulterations. Each student compiled a dairy herd improvement record book on one herd and became qualified to take a position as supervisor of a Dairy Herd Improvement Association. The majority of the boys attending this course were high school trained before enrolling in the course.

The second unit opened Tuesday, January 3, and closed Friday, January 14. This course was for the training of spray ring operators and consisted of work in overhauling spraying machinery, instruction in pruning of orchards and complete spraying program. It also included training in bookkeeping necessary for spray ring records. A state specialist was present several days during this course to assist the regular instructors of the school. The men from the school staff presenting the courses were E. A. Polley and H. C. Klumb.

## Florida Teacher Gets Results

F. K. Knight, teacher of vocational agriculture at Crescent City, Florida, has been building increased interest in citrus evening classes for the past three years. This has been due to the results gained from practical application of approved practices discussed at the meetings.

During the year the following practices were applied 135 times by 29 growers representing 384 acres of citrus:

- (1) Using materials instead of mixed fertilizers. Nitrogen three times a year: phosphate and potash one time a year.
- (2) Growing crotalaria cover crop for soil building.
- (3) Growing natural grass cover crop.
- (4) Improved method of pruning.
- (5) Cooperative buying of fertilizer.
- (6) Correcting soil acidity with lime.
- (7) Soil cultivation of groves (mowing instead of plowing or harrowing.)

The estimated financial value of these improved practices for the year was \$16,571.

Mr. Knight had 49 growers enrolled

in his citrus class last year and has been able to reduce the cost of production by more than one-half, at the same time maintaining quality and yield equal to that gained by previous and more expensive methods.

The following news clippings are evidence of the activities of the Crescent City evening class in citrus production:

**CRESCENT CITY, Florida, March 20:**—The second cooperative carload of nitrate of lime was distributed to citrus growers this week for the spring application to groves in this district. The advantage of bulk prices has been made possible through the organization of local growers into a Citrus Seminar of which Mr. T. S. Carpenter, Jr., is president, and Professor F. K. Knight, teacher of vocational agriculture, is secretary-treasurer. Forty-nine of the community's most prominent citrus growers are members, and regular evening classes for cooperative buying and the dissemination of the latest citrus recommendations are held under the leadership of the teacher of vocational agriculture.

**CRESCENT CITY, Florida, March 25:**—Two carloads of oyster shell lime were ordered by 20 growers at their regular meeting of the Citrus Seminar last night. The cooperative buying of materials for fertilizing orange groves is being conducted by Mr. T. S. Carpenter, Jr., and Professor F. K. Knight, as a part of the program which is being carried out in evening class sessions of prominent growers in this area.

It has been proven by local growers that recommendations brought to the community some time ago by Professor Knight, teacher of vocational agriculture, relative to the correcting of soil acidity in groves to the point where it is agreeable to citrus trees will go a long way toward production of quality fruit. As it was pointed out some time ago by Mr. Knight, the optimum range of the soil for citrus production is from very slightly acid to neutral. Several of the growers in this area applied lime to their groves last year at the rate of 500 pounds ground limestone per acre. Growers using this amount of limestone declare that improvement in quality of fruit was noticeable. It is believed that with further applications each year the quality can be increased more.

## Supervised Practice in Evening Schools

J. E. MORRIS, Rome, Alabama

**O**VERHEARING a group of business men, some of whom were skeptical, discussing the dollar and cents value of evening school work for farmers, set the writer searching his files for records of improved practices resulting from 12 evening schools taught by him during his eight years as teacher of vocational agriculture there.

Combined figures revealed that more than 200 individuals, representing 82 farm families, had taken part in classes covering soil improvement, poultry production, home orchards, home gardens, and home beautification and improvement.

Cultivated land needing terracing was

## Supervised Practice with Evening School Students

JOE DUCK, Instructor in Agriculture, Missouri

**S**UCCESSFUL supervised practice begins with the selection of the evening school members. Enrol only those engaged in the enterprise being studied and those preparing to take up the enterprise immediately. Welcome any farmers to the meeting, but do not encourage them to attend. Have an interested farmer secure the enrolment by getting the signatures of farmers (who meet the requirements above) to a paper asking for an evening school and promising to attend every meeting possible.

The second step of importance is to make an enterprise survey of the members on the enterprise selected by the "key" farmers and the instructor. It is assumed that a general farm survey and enterprise surveys of the community have been made previously. If the course is on a job basis, make a job survey at the time the enterprise survey is made. Summarize the surveys and take to the first meeting.

The third and most important step is to outline a course of study (members and teacher working together) that begins functioning immediately, not next year or some years in the future. Supervised practice is impossible if the content of the course does not meet real and immediate needs. Cut out all "dead wood." Do not review practices already in use by the members; do not teach material unless it be live and useful.

If these three steps have been taken, supervised practice is easy to secure. The members are eager to use practices that function. Give individual help by talking with the members before and after meetings.

Send out a summary of each meeting to all members, including the conclusions of the group on all important phases of the subject and reminding them of the subject for study at the next meeting. Make calls on members of the evening school when out visiting all-day students. Approach the farmer as one interested in how he is getting along on some particular job, not as a supervisor. Personally, I do not require the keeping of records nor the making of reports.

found to have decreased from 85 per cent in 1924 to 40 per cent in 1932.

Commercial flocks of purebred poultry had increased from none in 1924 to eight flocks averaging 1,000 hens each in 1932.

Home orchards, found in only 10 per cent of the farms in 1924, had reached 52 per cent in 1932.

Less than 2 per cent of the farmers had fall gardens in 1924, while 75 per cent now have green vegetables 11 months of the year.

Farm home beautification, practically nonexistent in 1924, extended to 49 farm homes in 1932.

Although other factors played an important part in bringing about many of these changes, it was through evening schools that the definite and practical work of adopting the improved practices was started and directed.





# Future Farmers of America



## The National Congress at Kansas City

**BOBBY JONES** of Radnor, Ohio, was elected president of the national association of the Future Farmers of America at the Kansas City meeting, to succeed Vernon Howell of Guymon, Oklahoma. His likeness is shown on the cover of this issue of the magazine, also in the bottom row of the group photograph, next to Dr. C. H. Lane, left.

Other national officers elected were:

Alex Alampi of Williamstown, New Jersey, First Vice-President.

Robert Stewart of Miles City, Montana, Second Vice-President

Marion Winge of Lyons, Georgia, Third Vice-President.

Morrison Lowenstein of Kearney, Nebraska, Fourth Vice-President. Carl Shoppell of Dansville, Michigan, Secretary.

The first four of these young men are in the top row of the group photograph, left to right. Cary Shoppell is next to Dr. W. A. Ross, the end man to the right on the bottom row.

The national advisory officers, including Dr. C. H. Lane of Washington, D. C., National Adviser, and W. A. Ross, of Washington, D. C., Executive Secretary, were retained.

**WILLIAM A. BROYLES**  
CHAPTER  
WINS CHAPTER  
CONTEST

**HIGHLY** developed project work, especially with potatoes, won for the William A. Broyles Chapter of Park River, North Dakota, the 1933 National chapter contest sponsored by the Future Farmers of America. With this honor goes a prize of \$400.

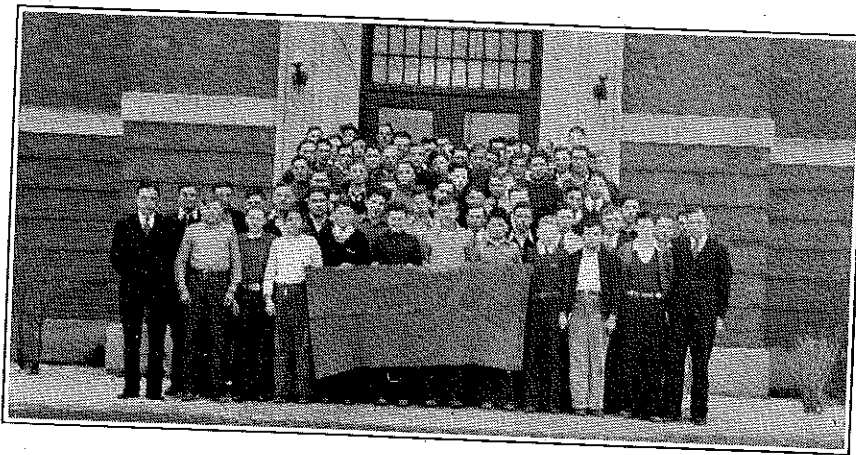


National Officers of Future Farmers of America, 1933-34

Other chapter contest winners were:

Twin Falls, Idaho chapter, second with a \$300 prize; Cairo, West Virginia, third with a \$100 prize. The prize awards in this contest were all offered by the National Association of the Future Farmers of America.

The total farming investment of the Park River group of farm boys is \$7,122, an average of \$188 per boy. Average earnings for the 50 members of the chapter this year was \$309. The boys sold seven car loads of potatoes and bought two car loads of seed potatoes cooperatively. Much of their supplementary activity work was treating seed potatoes and spraying their plantings. The boys also organized a county seed and livestock show and



William A. Broyles Chapter, Winner of Chapter Contest

conducted a contest in which 15 judging teams were entered. A year ago members of this chapter prepared and delivered Christmas packages to five needy families. They also mixed six tons of laying mash, 10 tons of starting mash, and 350 bushels of gopher poison for distribution over the country.

The Park River boys won first in each of the state grain, livestock, and poultry judging contests. Eighty per cent of the boys in the chapter attended a summer camp. The average scholarship of the chapter members was 87.5; each boy had an average of 1.5 projects; used 12.3 improved farm practices, and learned 17.8

farm skills.

M. H. McDonald, the vocational agriculture teacher, is adviser of the championship chapter.

Livestock produced cooperatively by members of the Twin Falls, Idaho chapter the past year won \$952 in prize money, on an extended fair circuit. The chapter cooperatively cared for 1,260 feeder lambs and 17 purebred sows for which they also prepared 3,000 pounds of balanced rations.

The total farming investment of members of the chapter was \$14,987, an average of \$299 per boy; and the average earnings per boy was \$192.20 for the year. The chapter income was \$1,052. An average of two projects was carried; 4.88 approved practices were used, and an average of 7.18 farm skills were acquired by each boy. The average checking account was \$12.50 per boy. C. L. Mink is adviser of the

**Twin Falls group.** A road-side market operated cooperatively was among the important activities of the Cairo, West Virginia chapter of which Perry Wickline is adviser. Products sold at the road-side market brought \$655.07. Income from a cooperative green-house amounted to \$415 from plants produced. The total farming investment of the boys is \$6,013. Their average earnings for the year was \$285.88. Their average investment in project work was \$353.

The seventeen members had an average grade of 83.83 and reported an average of 3.9 projects per boy with an average of 13 superior farm practices followed and 7.7 farm skills learned.

The twenty-two members of the Homestead Chapter which won fourth place have a total farming investment of \$11,175. Their labor income averaged \$295. They conducted an average of 1.7 projects, put into effect 5.4 farm practices and learned an average of 10.3 farm skills. The average grade of this group was 77, and they had an average checking account of \$30. George Wakefield is adviser and Alvin Simmons, secretary of the chapter.

### OFFICIAL BAND

**THIRTY** farm boys, all members of the Fredericktown, Ohio, Chapter of Future Farmers of America, were included in the official band for the National Convention of the Future Farmers of America. This organization led the parade of vocational agriculture students and delegates from the 46 states having chapters of F. F. A. in the American Royal Livestock Show arena.

The Fredericktown band also furnished music for the Public Speaking Contest and for various other activities during the convention. The picture of this band appeared in the December issue of this magazine.

### SEVENTY-THREE AMERICAN FARMER DEGREES CONFERRED

The following boys are now American Farmers and entitled to wear the gold honor key of the degree:

- Norman Crawford, Marion, Ala.
- Fred Wm. Harper, Paris, Ark.
- Marvin Simpson, Vilonia, Ark.
- James Wright, Stephens, Ark.
- Alan Maki, Hydesville, Calif.
- Geo. Nichols, Petaluma, Calif.
- Walden Denny, Auburn, Calif.
- Joe Wilson, Valley Ford, Calif.
- John Elbert Kite, Shasta, Calif.
- Jas. Conley, Frederica, Del.
- Waldo Emerson Bishop, Aucilla, Fla.
- David Newton, Norman Park, Ga.
- Marion Winge, Lyons, Ga.
- Waichi Ouye, Hakalau, Hawaii
- Elmer Frost, Jerome, Idaho
- Robert Copper, New Holland, Ill.
- Donald Peach, Walnut, Ill.
- Paul Powell, Jerseyville, Ill.
- Judson Mason, Elgin, Ill.
- Kenneth Meyers, Angola, Ind.
- Ronald Boyd, Bassett, Iowa
- Chas. Steward, Dana, Iowa
- Elmer Dawdy, Washington, Kans.
- Wm. Fuller, Miltonville, Kans.
- Geo. Clements, Owensboro, Ky.
- Aloysius Reisz, Owensboro, Ky.
- Lucien P. Laborde, Marksville, La.
- Wesley B. Slaid, Logansport, La.

Chas. Hoke, Walkersville, Md.  
Carl Shoppell, Dansville, Mich.  
Willis McCulloch, Beaverton, Mich.  
Waino Kortsmaki, Cloquet, Minn.  
Maurice Dankenbring, Sweet Springs, Mo.

Robt. Mills, Booneville, Mo.  
Robt. Stewart, Miles City, Mont.  
Morris Lowenstein, Kearney, Nebr.  
Arell Wasson, Wilcox, Nebr.  
Wm. Lee, Fallon, Nev.  
Alex C. Alampi, Williamstown, N. J.  
Paul M. Kuhnley, Las Cruces, N. M.  
Herbert W. Smith, Rochester, N. Y.  
Geo. A. Turner, Horseheads, N. Y.  
Harry Graves, Cavalier, N. Dak.  
Earl W. Miller, Georgetown, Ohio  
Homer King, Orville, Ohio  
Earl Rosenberger, Fremont, Ohio  
Emil Belitz, Wellston, Okla.  
Edwin Taylor, Kingfisher, Okla.  
Ray P. Burton, Perkins, Okla.  
Howard J. Smith, Canby, Oreg.  
Chester N. Stephens, Dayton, Oreg.  
Cinton L. Pease, Eighty-Four, Pa.  
Kenneth S. Perdue, North East, Pa.  
Raymond Ellis, Canton, S. Dak.  
J. W. Ezell, Jr., Antioch, Tenn.  
Alex Fitzgerald, Trenton, Tenn.  
H. Kai. Grissim, Lebanon, Tenn.  
Elwell Perry, Joelton, Tenn.  
John H. Gilbert, Cotulla, Tex.  
Bobbie Thurman, Cisco, Tex.  
Doyle E. Cardon, Smithfield, Utah  
Ashby S. Brumback, Middletown, Va.  
Wm. A. Brooks, Stuarts Draft, Va.  
J. Sam Buchman, Chatham Hill, Va.  
Thornton Oliver, Suffolk, Va.  
Hilton Rector, Ellensburg, Wash.  
Lenley B. Wooten, Chelan, Wash.  
Stuart Watts, Maxwelton, W. Va.  
Bernard Donkersgood, Baldwin, Wis.  
Arley Henize, Portage, Wis.  
Joseph Franklin Capron, Powell, Wyo.  
Bobbie Jones, Radnor, Ohio

### AMERICA'S STAR FARMER

**AMERICA'S** outstanding farm boy for 1933 is a Missourian, Maurice Dankenbring of the Sweet Springs Chapter Future Farmers of America.

Dankenbring received the highest award offered the nation's youth and a check for \$500 in the arena of the American Royal Livestock Show, Kansas City, November 21, being selected Star Farmer of America. He had been named in the list of 73 farm boys to receive the degree of American Farmer.

Special middlewestern state's Star Farmers awarded prizes were: Missouri—Robert Mills, Jr., Booneville Kansas—William Fuller, Miltonvale Oklahoma—Roy Burton, Perkins Arkansas—Fred Wilham Harper, Paris

Ability to utilize, for the advancement of agriculture in his own community, such resources as he had at hand were potent factors in the selection of Maurice Dankenbring, 19-year old farm youth, as Star American Farmer.

Many of the 78 candidates for the highest honor in the organization of Future Farmers of America had more equipment than Dankenbring with which to work, a few equalled his interesting farm record, but none other quite measured to the all-around qualities he displayed. In being selected

Star American Farmer, Dankenbring should indicate a brilliant future for rural America.

It did not come as a great surprise to A. H. Bennett, Dankenbring's first vocational agriculture instructor, that the straight, blonde boy from Sweet Springs, who had borrowed \$50 back in 1929 with which to start his first project, should be declared the Star Farmer of America.

"In all my associations with boys as a vocational agriculture instructor I have found Dankenbring the most willing to cooperate in all activities in which he was engaged," Bennett said.

Dankenbring graduated as honor student last spring. He was president of his class, the high school dramatics club, and of the Elder Community Club where nearly all of the members were older than himself, and was elected President of the Missouri Association of Future Farmers this year. He took part in public speaking contests, played and sang with the school and the Lutheran Church musical organization, and made trips as a member of the school livestock and grain judging teams. He is the agriculture superintendent for the Sweet Springs Fall Festival. This has been done in addition to his routine work on his parent's 160-acre farm, on a second 160-acre tract which his father rents, and with his vocational agricultural projects.

The meager foundation stock which Maurice bought with the borrowed \$50, which he long since has paid, has been increased to an investment in farming of \$525 and other assets of \$135. His supervised practice program included swine, dairy cattle, poultry, sheep, corn, oats, soy beans, and Lespedeza, from which he derived a labor income of \$945.

He now owns 2 registered Jersey cows, 2 registered Jersey heifers, 1 registered Jersey heifer calf, 2 registered Poland China sows and litters, 4 registered Shropshire ewes, 8 grade Shropshire ewes, 2 registered Shropshire ewe lambs, 100 certified White Leghorn hens, and a one-third interest each in a Shropshire ram and Poland China boar.

The Star American Farmer is anxious for a farm of his own and holds an option on the 160-acre tract now being rented by his father.

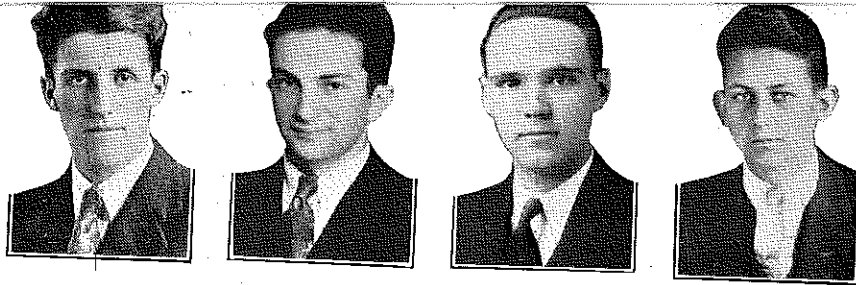
"We can buy this farm on a crop payment plan," young Dankenbring said, "and our judgment indicates that land values at this time offer me a splendid opportunity to become a farm owner soon.

"Under my plans, I will have, at the end of three years, sufficient assets of my own to take over this farm.

"In my livestock operations I intend to specialize in the production of high type, purebred livestock in which I now have a foundation with Jerseys, Poland China Hogs, Shropshire sheep, and White Leghorn hens. I hope to increase my flock of hens to 1,000 as rapidly as possible."

Those who have worked with the Star American Farmer and know him say that in the light of his past achievements his plans for the future likely will be carried to completion. Dankenbring's picture will appear on the cover of an early issue of this magazine.





Regional Representatives of Public Speaking Contest. Left to right, Albert Richardson, Massachusetts; Raymond Malouf, Utah; Joe Brummell, Missouri; William Guidry, Louisiana

RICHARDSON OF MASSACHUSETTS,  
WINS F. F. A. PUBLIC SPEAKING  
CONTEST

ALBERT W. Richardson of the Reading, Massachusetts Chapter Future Farmers of America, is the champion farm boy public speaker in the United States, winning the championship title and a \$400 prize in the finals of a nation-wide speaking contest at the Sixth National Convention of the Future Farmers of America.

Other placings in the finals were: Raymond N. Malouf of Richfield, Utah, second; Joe E. Brummell of Troy, Missouri, third; Wm. E. Guidry of Breaux Bridge, Louisiana, fourth.

Richardson, the north Atlantic States' contender in the contest, was rated as an exceptional student at the Lowell, Massachusetts, High School, from which he graduated in 1930, and at the Reading High School where he this year completed a post graduate course in vocational agriculture. He is 21 years old.

While attending high school, Richardson worked for an orchardist and market gardener. Because of an accident suffered this year by his mother he found it necessary to give up this work and remain at home. He continued his agriculture work, however, and from one-half acre of old sod land produced crops that made him a net profit of \$100 this summer. Supervised work netted him another \$100.

Richardson's ambition is to enter Massachusetts State College to major in agriculture. He is a member of the Reading High School Chapter, F. F. A., Middlesex County Farm Bureau, and the North Reading Grange.

His subject in the finals was "Why Be a Farmer?"

LIVESTOCK WINNINGS

HOWARD Christensen, Future Farmer of Clinton, Oklahoma, owned the 1933 grand champion baby beef of the vocational agriculture division of the American Royal Livestock Show held in Kansas City. His grand champion calf also won first in the senior Hereford calf class.

The reserve champion of the show was a Shorthorn calf owned by Lowell B. Fulkerson of Trenton, Missouri. His calf also won the first place in the senior Shorthorn calf class.

Tom Ed Doak of Gallatin, Missouri, with a heavy lamb, was awarded the prize for the grand championship in the fat lamb class. The reserve champion lamb was a light lamb owned by Edgar

Muller also of Gallatin. The Gallatin exhibitors, whose vocational agriculture instructor is Roy P. McWilliams, won the first six places in the light lamb class.

A Duroc barrow, owned by Johnnie Nemecek of Noble, Oklahoma, was the champion barrow.

Livestock shown in the Vocational Agriculture Show totaled 177. This included 82 calves, 22 heavy and 20 light lambs, and 53 hogs.

Competition was keen in all livestock classes, and much interest was shown by both exhibitors and spectators as the animals were paraded before the judges. C. L. Angerer of Jefferson City, Superintendent of the show, was high in his praise of the exhibits. O. R. Peterson of Kansas City, judge of the hog division, declared the "fat barrow show was the best junior show I have ever seen."

KENTUCKY WINS LIVESTOCK  
JUDGING CONTEST

KENTUCKY sent the champion vocational agriculture livestock judging team to the American Royal Livestock show at Kansas City. Kansas placed second, and Pennsylvania third.

Future Farmers on the Kentucky team which placed first with a score of 1967 were J. T. Allison and George Crawford of Lexington, and Maurice

wilson of Stanford. The Kansas team was composed of Darrell Crack, Elmer Dawdy, and Delbert Stratton, of Washington. Their score was 1948.

On the Pennsylvania team which earned a score of 1939 were Harvey Strosnider of Hughesville, Jesse Houseknecht of Waynesburg, and Milton Brown of Newportark.

J. T. Allison of the Kentucky team, was individual winner; William Swenson of Spanish Fork, Utah, second; and Darrell Crack of Washington, Kansas, third.

Rank of Teams by Classes of Livestock  
HORSES—

- First—Kentucky
- Second—South Carolina
- Third—Tennessee

CATTLE—

- First—California
- Second—Ohio
- Third—Illinois

SWINE—

- First—Oklahoma
- Second—Minnesota
- Third—North Carolina

SHEEP—

- First—Kansas
- Second—South Dakota
- Third—Missouri

ILLINOIS AGAIN FIRST IN MEAT  
IDENTIFICATION

FOR the fifth consecutive year an Illinois team won the National Meat Identification Contest at Kansas City. Utah won second, and Kansas third. Points earned and team membership are as follows:

- First—Illinois—Points 275
  - Frank Swanson, Dundee
  - Russell Kelahan, Dundee
  - LaVerne Keisler, Dundee
- Second—Utah—Points 245
  - J. Fred Skinner, Spanish Fork
  - William Swenson, Spanish Fork
  - Arthur McKell, Spanish Fork
- Third—Kansas—Points 242
  - Elmer Dawdy, Washington
  - Darrel Craik, Washington
  - Delbert Stratton, Washington



Kentucky's Winning Livestock Judging Team. The individual winner, J. T. Allison, is seated, left.