through which will be developed a new pattern of life for many of these people—a pattern of life not entirely rural,

nor entirely urban.

These people will have opportunities to live on small tracts of land and to gain many of the advantages of a rural life and to avoid the many disadvantages which go with congestion in the cities. They will be able to have gardens, some fruit trees, possibly poultry and a cow, and a better place to raise

At the same time it is improbable that these people will attempt agricultural production on a commercial basis. It is unlikely that they could hope to compete with established commercial agricultural production with the small plants and limited time they will have to devote to their land.

Commercial family agriculture has, I believe, nothing to fear from this development, which offers so many possibilities for the improvement of the standards of family life for people who work in industry. Possibly there will be a movement of some folks from the cities to this type of community.

Because the old frontiers are gone, where surplus farm population found an opportunity to apply itself, this new pattern of life may be the new frontier of the future towards which excess populations on the farm may move without losing so many of the fundamental values of rural life which we too often fail to appreciate.

The philosophy of the New Deal for agriculture is based on the necessity for the closest possible recognition of forces which have a profound bearing on agriculture and an appreciation of the need for action in adjusting ourselves to these changes—plus the will

Thus far, operations under the Adjustment Act have brought about a material increase in the economic welfare of farmers and a marked stimulation in the ability of farmers to purchase industrial products. The flow of income to agricultural areas resulting from these operations has been a stabilizing influence on business generally since passage of the Act, and it has been very helpful during the summer of 1934 when, without the support of farm buying, the slackening industrial activity might otherwise have resulted in a far worse fall in retail sales and general business activity than actually occurred. We have now come to a point in the Adjustment program where the greater part of the excessive surplusses has been eliminated. The drought resulted in a reduction in available supplies of many commodities far in excess of that which anyone could have anticipated a year ago.

The present problem of agricultural adjustment is to find the most effective means of seeing that the production of each major product is in reasonably close adustment to the current ability of consumers in the United States and of our foreign customers who still remain to buy that production. To maintain adjustment so that supply is quite well balanced with demand makes possible an expansion in some production next year. Perhaps

yields during the next cropping season will be high, and the current ability of consumers, here and abroad to buy those products will not increase materially. That might necessitate a further downward adjustment in 1936.

On the other hand, there is hope that the ability of consumers to buy farm products will be increased. It is in that direction that we must look. If demand can be pushed upward and farmers and city dwellers alike can enjoy a continuous rise in living standards, it will be easy enough for farmers to adjust continually their production to a rising level of demand for their products.

We will face an acute danger at any time that we move in the direction of making it impossible for farmers to have machinery necessary for them to keep in continuous adjustment with national and world economic factors, for this is a dynamic world and today's picture may be entirely changed a year from now, or even within a shorter time. Certainly we cannot afford to abondon our ship—the farms of America—to the forces of drift.

We have substantial evidence that the farmers of America have an intelligent realization of the problems they face, growing out of the uncertainties of international trade and the inequalities between the purchasing power of farms and farm crops. They have also demonstrated their capacity to cooperate in meeting squarely these problems in the democratic tradition.

Our Cover

(Continued from page 118)

sey cattle. Other farm activities include: 30 head of sheep, 5 hand of horses, 30 acres corn, 15 acres oats, 12 acres wheat, 45 acres hay, and 3 acres truck. Donald bought a stallion this past summer and is adding to the farm profits by using it for breeding purposes.

Donald, not being married, lives on the home farm with his father and mother. He is the only son and has but one sister. He is active in the work of the local chapter, and aids the boys in their agricultural work. His work on the farm is bringing him recognition as an adult worker. Present indications are that he will remain in the community as a progressive farmer.

Part-time Classes in Agriculture

(Continued from page 124).

In Missouri our supervised practice program with the part-time group will be one of assisting these boys to make necessary adjustments in their farming operations, to secure farms of their own, and at this particular time much assistar e can be given to establishing them on good land through the use of credit from the Federal Land Bank.

In practically all of the reports made by the men in the fall conferences, farm management, including the use of credit and economics, seemed to be of major importance for this particular group of boys.

Possibly we should be more concerned with the boy out of school who has never had the opportunity of receiving instruction in vocational agriculture, but to me where the number of former vocational agriculture students is sufficiently large, we can render a far more effective service because:

These boys have had some training and will make greater progress as a result of advanced instruction.

They are at an age, having been out of school several years, to appreciate and use this information immediately. They would make ideal members for

an alumni chapter of F. F. A.

It is with this group that rural leadership may be developed, and with their assistance the Future Farmers given capable guidance.

These boys should be encouraged to take advantage and participate in the various school activities—both social and recreational. Seemingly, what they need at this time is encouragement, and we should meet that responsibility—of guidance, offering technical training, and individual development.

Dr. Warren once said that some people are born at the right place, others at the right time, while some are born at the wrong place or the wrong time. am certain that these boys who are going into farming on the better soil types were born at the right time. We should assist them in farming at the right place and make their adjustments according to present and future economic conditions. The situation is certainly at hand. It is being discussed by the President, by congressmen, by educators, and by other leaders. I heartily recommend to you the splendid report on the "out-of-school farm youth," recently issued by the Vocational Division of the Office of Education. It is of special value at this most opportune time.

The Problem of Out-of-School Farm Youth

(Continued from page 125)

civic, and recreational manner. They can't do it by teaching school from eight till four and going home to be by themselves. If all the faculty of any school would show to the young men and women of the community that the school house should be the social and recreational as well as the educational center, there would be more civic pride in our rural communities and less crime.

After we have convinced our young men and women of our rural sections that we want them, then we should set up for them the instruction they say they need, on the general outline as set up by A. F. Wileden of the University of Wisconsin:

1. Vocational choice together with occupational adjustment and plan-

2. Family anticipation, including home plannin and mate selection.

Personality development and opportunity for self expression.
 Adaptation to the life of the community and the state.

Agricultural Education February, 1935

Vol. VII MARCH, 1935 No. 9 Agricultural Education An American Farmer Family Mr. and Mrs. Glenn Farrow of Danville, Arkansas, with their two children The problems of rural economics and rural culture must be driven abreast, not tandem. - Glenn Frank

DITORIAL 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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THE NEW EDITOR



Roy A. Olney

THIS issue of the Agricultural Education magazine is the last issue for present editor, he having served for three years. At a meeting of the Editing-Managing Board for the magazine at Pittsburgh in December, Roy A. Olney of Morgantown, West Virginia was unanimously elected as the new editor, after a careful survey of the field.

Mr. Olney is assistant state supervisor of vocational agriculture, West Virginia and has teacher training duties at West Virginia University. This job he has had since 1922. He is also state adviser of F. F. A. From 1920-22 he

was assistant supervisor for North Carolina. Before that he was for five years teacher of vocational agriculture in New York State, being critic teacher in Cornell University's practice center for the latter two-and-one-half years. He was born in New York State, graduated in the College of Agriculture, Cornell in 1915, and received his Ph. D. from

Roy Olney is a very human kind of a man. He enjoys good music and spends his spare time in gardening and tinkering with mechanical jobs. He and Mrs. Olney were high school sweethearts. That means they have been in love for a long time. The family now includes two sons, 15 and 10 years old. The out-going editor extends to Mrs. Olney his sympathy in being the wife of the editor of the Agricultural Education magazine. She is likely to be a much-neglected wife. And she will have to raise the garden if it is raised.

I have stated that Mr. Olnev is human. Let us not forget this fact as he labors in the service of the magazine. The editor is only a human being. He can't please every one all the time. He makes mistakes, just as other humans do. The present editor has never edited a copy of the magazine in which he didn't find errors when the magazine came off the press. Some of these have been glaring errors. Some have been the fault of the editor; others, no one person's fault. But whatever the errors have been, the readers and those who contributed the articles have been more than kind. Just keep up that spirit with the new editor. And don't forget that an editor can't produce a magazine by himself. It takes team-work to produce a magazine. Stand behind the new editor, and you have nothing to fear.

The out-going editor takes this opportunity to express his appreciation to the Special Editors, to the Editing-Managing Board, and to every individual who has contributed to the magazine by way of article, suggestion, or criticism. He expresses publicly his appreciation of the work of the business manager, Dr. W. F. Stewart, in cooperating with the editor and in handling subscriptions and other business problems. He also wishes to express publicly his appreciation to The Meredith Publishing Company for their making the magazine possible and for the many services they have rendered the editor and the magazine. It has been a joy to deal with such men as Kirk Fox, M. A. Hunnicutt, and Hugh E. Curtis, of The Meredith Publishing Company.

YOUR POEMS

THESE two contributions were sent in by Henry C. I Groseclose, in response to our request in the January

My Idea of Perfect Adjustment to Surroundings

The year's at the Spring; the day's at the morn; The morning's at seven; the hillside's dew-pearled; The lark's on the wing; the snail's on the thorn; God's in his heaven; all's right with the world.

-Browning

My Idea of Philosophy in a Nut-shell

To watch the corn grow, Or the blossoms set: To draw hard breath Over plow share or spade; To read, to love, to pray; Are the things That make men happy.

-John Ruskin

OUR COVER-A SUCCESSFUL MODERN PIONEER

RALPH B. SMITH, State Supervisor for Agricultural Education in Arkansas

ONE of the greatest problems of our super major depression period is to so train our young people that they may become successful and happy modern pioneers. The pioneers of the 40's and 70's were hardy individuals whose adventurous spirits led them westward to the new lands and great undeveloped natural resources.

"Today," writes Secretary Wallace, "new pioneers have been spying out the land. It is a rich land, but it is hard to build the vessels to take us to it because they must be built out of 'mind stuff' and they are not sea-worthy until by common consent we agree they are safe." So the challenge goes out to leaders in agricultural education to marshal their forces for training both present and future farmers for the greatest pioneering period in American history, the frontier of economic democracy as planned in the great New Deal for American agriculture.

Already some of our former Future Farms of America. known to the organization as "Early American Farmers," are succeeding in the outposts of the new frontier. One of these is Glenn Farrow of Danville, who was Star American Farmer from Arkansas a few years ago.

Recently, the writer had the pleasure of visiting Mr. and Mrs. Farrow and their two happy children at their farm home in Yell county, where in spite of the most severe drouth he found the little family full of hope and happiness as they were building their new home. While this in itself might have been suitable material for a "believe it or not" story, in addition they had just recently purchased 23 acres of land which joined theirs and which was badly needed to round out their little farm to its present size of 77 acres. Being interested in just how a young modern pioneer could succeed in these times when even very few well established farmers can make ends meet, I requested Mr. Farrow's permission to analyze his farming according to the Arkansas Five-point Program of Vocational Agricultural Education. Briefly, this is what was found:

(Continued on page 134)

Agricultural Education March, 1935



Professional



Recent Rural Social Trends¹

EDMUND de S. BRUNNER, Professor of Education, Columbia University in large part due to the migration from

IN TIMES like these the discussion of such a subject as assigned presents difficulties. Should one consider it from the long time or the short time point of view? Certainly the former is the easier, for data exist and sounder conclusions. at least as to what has happened, can be drawn. But it is well to remind ourselves at the outset that the study of trends is beset with many difficulties because of the unpredictable occurrences that are constantly arising. Consider, for instance, the first third of this century. It may be regarded as one of the most significant periods of American Rural Life, the beginning of which approximates the end of the pioneering, free land movement. This period has witnessed abrupt shifts in export trade, the rise of cooperative marketing, and an unprecedented output of agricultural legislation. It has been marked successively by well-being, unusual prosperity, and economic disaster. It has witnessed the passing of the hoe, the horse and the buckboard, and the coming of the tractor, the combine, and the automobile. It has seen the end of rural segregation and a rise in the standards of farmers, villagers, and their communities. It has experienced the shock of war and felt the drain of a vast cityward migration. It has observed the growing intensity of the interplay of social and economic concerns and noted the reorganization of rural social utilities and communities, with the consequent passing of rural isolation and the coming of the interdependence of farm, village, and nation.

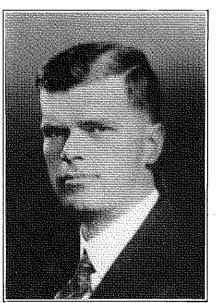
But some interpretation must be made of the word "recent" in the assigned title, and I shall therefore emphasize chiefly the period from 1920 to

Whether one examines the census or revisits identical communities at regular intervals, the conclusion is that many things have happened, far more than could be catalogued in a 45-minute address. You will understand, therefore, that rigorous selection is necessary, and that I shall but touch on what seem to me to be the high spots of the years under consideration.

With our national philosophy, at least up to 1930, that tomorrow was to be bigger and better than today, we Americans have always been much interested in total population statistics. Nor are the population trends unimportant. During this century rural America has become for the first time a minority group; in 1930, barely 44 percent of the nation's population was rural.

Moreover, between 1920 and 1930, for the first time in our history, the farm population actually decreased. This was the farm. Up to 1930, this steady trend of farmers to the city was advanced as a most hopeful solution for the problems of agriculture. If enough farmers could only be taken off the land, our overproduction of crops would be automatically cared for-or so ran the argument. But even up to 1929 the movement was a two-sided one. For every five families that left the farm for the city, three left the city for the farm. When one examines the details of the

small net decrease in the farm population that occurred between 1920 and



Edmund de S. Brunner

1930, he is surprised to discover that the decline reported in the 1930 census was due exclusively to the decline in the negro and foreign-born farming population. Actually there were nearly a quarter of a million more native white persons on farms in 1930 than in 1920. Since 1929 a new thing has happened. The movement of population has been reversed. It flows now from the city to the farm and village. So strong has been this movement that the United States Department of Agriculture estimates that our farm population is today greater than at any time in the nation's history.

Implications for Social Institutions, Especially Schools

The decade also accentuated the fact that rural America is no longer a single population group. Once to live outside the city was to live on the farm, but there has been growing up a rural nonfarm group (village) now more than two-

growing at a more rapid rate than the nation as a whole. It is entirely conceivable, in fact, probable, that by 1940 or 1950 the farming population, once the dominant element in the nation, will not even comprise the majority of the rural population.

What did you say, the country town is growing? As a whole, yes, not all of them of course, though the rate differs sharply by states. Of all these villages, very few were declining by as much as 1 percent a year, and very many of these were industrial places—lumbering, mining, and textile villages. Even of the small places of less than 1,000 population, only 1 in 13 lost by as much as 20 percent in population between 1910-30, whereas more than a fourth had gained 20 percent or more.

There is a tendency, however, toward stability of population (3/5).

There are many possible explanations for the growth of these small towns. The major one relates to the growth of these villages as service centers for the farmers. Again you may question, how about the city stores, the mail order houses, the chains? Are they not slowly but surely making the village unnecessary? Admitting the competition of these three elements in the distribution of goods. nonetheless there has been a growth both in the number of services and the amount of service offered by the village to the open country. Eliminating the chains, there were 28 stores per village in 1910, 32 in 1920, 40 in 1930. You will observe that the growth in the last decade was more rapid than between 1910-1920, despite the fact that during that period the number of farm families having automobiles nearly doubled. In this growth, however, the Middle West lagged somewhat behind the nation as

In observing village merchandising, there is seen a distinct trend toward specialization in trade, and stores have become modernized. The farmers are not burning up gas these days if they can be satisfied at home. Trade areas were actually increased, measured by square miles, in about a fourth of the villages studied. Perhaps one explanation of this lies in the fact that a new generation of merchants is in command.

It is also interesting to note, as a leading merchant in a city of over 300,000 said, "Hard surfaced roads run in two directions.

I am stressing this point because the great importance of the rural retail trade to national prosperity has been overlooked. In the fiscal year before the 1930 census was taken, rural people purchased 15.4 billion dollars worth of goods, or 30 percent of the retail trade of the nation, in stores located in places fifths of the total rural population, and of less than ten thousand population.

Paper presented before The Agricultural Section of the American Vocational Association at Pitts-burgh, in December.

It seems obvious that the rural and small town population furnished its proportional share of the retail trade of the U. S. There is no better argument for national attention to agricultural welfare than this fact.

The increasing economic service of the small town to farming people has been accompanied by growth in good relations between the farmer and the villager or townsman. This good feeling is expressed not in trade catching devices like free band concerts, but in actual cooperative projects such as fire protection, community promotion, in all of which and others the village and the farmer work together.

There was a great increase also in open country attendance and membership in village and town social organizations. One-fifth of the membership of the churches in these centers was made up of farmers in 1920. By 1930 the proportion had risen to one-third, and in the Middle West to practically twofifths. More than half the children in village high schools came from the farms. More than a third of the membership in the wide variety of other village social organizations such as lodges, parent-teachers associations, chambers of commerce, luncheon clubs and the like, came from the farm.

Before passing to the trends shown by these social institutions, let us pause for a moment to consider agriculture itself. Among the many tendencies that might be cited, I have selected two: First, the trend toward more small farms than large farms; second, the trend toward specialization.

Coming then to the less economic of our recent social trends, the first fact of importance concerns the higher standard of living everywhere apparent at least so far as measurable by such things as radios, automobiles, and household conveniences.

V		
,	\mathbf{Middle}	
Nation	West	
1920:1930	1920:1930	
Autos30.7 58.0	52.0 81.0	
Water piped10.0 15.8	11.2 30.0	
Electricity, 7.0 13.4	9.7 - 17.1	

While there are few studies that have actually attempted to measure the trends in standard of living, certain tendencies appear and may be mentioned here. For instance, in a year-by-year study covering receipts and expenditures of a small group of the same farm families in Ohio, it was shown that cash receipts from the farm products varied more than did expenditure for the family living. The expenditures for food varied least, and those for health and house furnishings most. Much the same tendency was found in a study of 900 farm families representing the six major farm-type areas of Wisconsin. About 30 percent of them did not balance their budgets during the year of study, 1930; but they did not vary their standards of living significantly from those families who did make their receipts equal or exceed their expenses. Nor did those families with the higher incomes expand their living expenditures in anything like equal proportions.

The passage of the years seems to indicate quite clearly that many of the older resulted in the expenditure.

forms of social organizations in the country are giving way, both because of the villageward drift of rural social life and because in some particulars newer forms are taking their place. The little crossroads neighborhood has not disappeared entirely, but social life shows a tendency to be organized more largely on the basis of interests than on the basis of locality. Similarly large-scale cooperative marketing associations are taking the place of small neighborhood ventures. There is, however, a real attempt on the part of country people to maintain, where they believe it necessary, a social integrity of their own, while nonetheless increasing in other respects their interdependence with the village and town or even the city.

The net result of this is that the number of social organizations for each village center rural community has remained static at 21 over the past seven years, but the interests expressed by such organizations in their programs and even in their names have changed considerably. The lodge is weaker; so are the old type of literary and musical organizations; but socio-economic groups and educational and cultural organizations have increased markedly. The most spectacular numerical gain has been in the number of youth-serving agencies, which doubled. Perhaps the best indication of what has been happening can be illustrated in terms of a single representative situation. In one small Western Pennsylvania

village with a considerable and welldefined rural hinterland, eight of the eleven organizations died; but almost as many new ones were born. The change was from the fellowship of social and fraternal groups to those of a civic, educational, and youth-serving character. The aims, therefore, were less selfishly social, in the sense of offering entertainment, and were more socially constructive. The present membership includes a larger proportion of country people. There had been, however, an increase in visiting, and in informal evenings of cards, by groups of friends. It was said that the radio was partly responsible for the swing away from purely social organizations. The new and surviving organizations united in a number of worthwhile projects. A band and a county baseball league had been organized, as well as an annual county field-day. An interest in local history developed, and the state historical commission was persuaded to mark the site of an old fort in a memorable day's

THE schools, of all types of social agen-L cies, showed the greatest progress, as measured by certain yardsticks. In the seven years between 1924 and 1931, 3 out of every 5 of the 140 sample communities added to their capital equipment, usually by a new building, an average amount of \$125,000—and this during a time of agricultural depression. In at least two instances where the community hesitated in the matter of school construction, farmers and businessmen combined and erected a building which was leased to the school board. In other cases, the pressure of farmers, the competition of neighboring communities, or the urging of a state board of education

The seven years between the surveys also saw a great advance in the technical qualifications of the teachers. Despite all this, the per pupil teaching cost was lower in 1931 than in 1924, with considerably better attendance.

It is also of interest that school principals reported much more of a tendency for grammar-school pupils to enter high school and for high school pupils to finish the course. This again is part of a national trend, as the census shows.

Furthermore there was a clear tendency for a larger proportion of the graduates of these rural high schools to continue their education, the gain being

nearly 40 percent.

One of the interesting aspects of the study was the trend in the curricula of these schools. In the earlier part of the period under discussion, the shifts were largely toward vocational subjects such as agriculture, domestic science, commercial education, and the like. There was also some gain in college preparatory subjects and in the social sciences, and a tendency to modernize history courses to take into account the world point of view, spending less time on past ages. A checkup in 1932 showed a somewhat different picture. The rise in vocational courses had been checked. College entrance subjects were frequently being alternated, but there had been a great increase in the number of schools adding work in the social sciences, particularly economics, sociology, and civics. This is quite evidently a response to the problems raised by the world-wide depression, and is a tendency to be commended. It raises the question, however, as to whether the school must always follow the event or whether by courageous foresight it can of itself help to mould social change.

Results of Depression

Obviously up to the intensification of the depression, rural America was struggling upward in most phases, though changes in rural government and in churches were all but nil. But the depression has wrought havoe of many kinds, and when your chairman asks me to project the trends of this century into the future, he asks the impossible. So many new features have entered into the picture. But perhaps we can do some guessing that will narrow the field of uncertainty.

The agricultural depression seems to have brought greater emphasis on fundamental matters. The farmer specializing in wheat, cotton, peanuts, or what not, is raising much more of his own food than was the case a few years ago. His wife is making more of der own clothes. The whole family has spent more time on all but forgotter handicrafts, skilfully urged on by the extension service and sometimes the schools. Recreation, too, is more frequently of the home-grown variety. In short, there seems to have been a nearer approach to actualizing an oft repeated dictum that agriculture is a way of life, than for some years.

The depression has also resulted in a wider interest in current social and economic problems that may have a continuing influence in rural life. The southern colonel, pillar of a local Methodist Church, who discoursed to me eloquent-

ly in 1924 on the high positive correlation between Russian communism and the anti-Christ and who in 1931 averred that "he'd be dog-goned if he didn't think Russia had more than half the right of it" is typical of hundreds of farmers and villagers with whom my feld workers and I talked in 1930-31.

Such incidents, it seems to me, are more fundamental cultural phenomena than the farm strikes, although it should be noted that some farmers at least are thinking a bit beyond the Reno demand for cost of production. They know starving city people want the food they are raising. The know they lack what these unemployed could make. They are unimpressed by explanations of our situation, by talk of debts and national income. They insist on taking the American dream literally, they claim the right to exchange the indispensable products of their toil for a good life. The farmers are more vocal, more to the left than at any time in forty years.

TAKE the Agricultural Adjustment Administration. The farmer is glad enough to get his bounty checks. In many places of which I've learned he has used them to pay obligations, but he is inherently as uncomfortable as the mules which objected to stepping on the cotton plants, over the idea of destroying food and fiber, especially in view of the world's needs. The thrill of making living things from the good earth, is always present in the farmer's heart. This is one of the evidences that farming is a life as well as an occupation, even as teaching. Now the farmer, judged from this historic attitude, is being paid to adopt the ethics of United States Steel. Some would say "bribe" because restricting production seems highly unethical to them, even if highly necessary under our present economic system.

It is too soon to forecast the results. The scheme rests largely upon local committees of farmers brought now into closer connection with Washington than ever before. The sociological effects of this organization and its contacts should not escape study. Will these groups become a potent force in marshalling rural public opinion and thus become politically powerful? Will they and the Agricultural Adjustment Act permanently change the ethical concepts of the farmer and develop from the agrarian group the demand for the permanent assumption of the role of Santa Claus by the federal government? If so, may not class antagonism increase? Or will the preachments about the death of laissez-faire and the coming of a socially planned economy capture the imagination of rural folk and make of them a great liberal block, supporting and perhaps increasing the idealism of the present administration? Should this happen, will our social control and planning extend to the rather fundamental problem of discovering how many farmers America actually needs,

and controlling the number accordingly.

It is possible we will make a normal recovery from our present abnormal depression, and the trends of 1910-1930, that Kolb and I have elsewhere described, will be projected into the future—a slowly enriching rural cultural life with increasing urban influences centering more and more around villages, towns, and small cities. Of course, mar-

ring that pretty picture, might come in some regions corporation or large scale farming, reducing the average agriculturist to the status of a factory hand. Cultural conflicts of various sorts would probably arise in this case. Some of the oldest and most successful corporation farms have had to simulate family farmstead conditions to get their best results. And rural people do not seem to react any too well to this type of control, as witness the Elizabethton and other strikes in 1929-30, when recent farmers first met the impact of industry as an employer.

What Will Take Place?

On the other hand, civilization as we have known it may collapse. Subsistence farming will then be the only way out for many millions. Or if civilization does not collapse, reduced industrial output plus technological progress may make it impossible for the cities again to offer a haven for the surplus population of the country. We may have by 1950 some nine or ten million farm families, the fore-runners of whom we already see outside Dayton and in the other developments in the Division of Subsistence Homesteads. If these hordes are added to our rural population because our system tumbles down about our ears, we face, of course, a new pioneer era, tempered in its struggle by what is salvaged from the present but culturally somewhat akin to the pioneer periods of the past. If the farming population increases under conditions comparable to those of 1930, because there is no other outlet for population, we face an interesting possibility. For under such conditions America will again be more than half rural, and the rural half will hold the balance of power politically. Should this occur, I venture to guess that the benefits of whatever of civilization survives will be widely diffused and at government expense. The New Deal might even be actualized under conditions quite different from those envisaged by the optimists of the Brain Trust.

If then the New Deal, accidentally or not, in truth turns up the right cards, you may write your own specifications of cultural change. It is an attractive picture that can be painted. A prosperous agriculture, its participants on good soil; a prosperous industry largely decentralized, its employees living where they can enjoy sunlight and air and support a good life in their doubled hours of leisure by efficient toil in their halved hours of labor—but why go on? To write a Utopia is not included in my charter. You may do that for yourselves.

JOWEVER, before you begin that writing, may I remind you of one thing. Many people assume that this crisis arose from extraneous causes. A few realize that the extraneous causes but revealed the inherent weakness of the system. It is a system which in its overspecialization has probably reached the limits of complexity to which it can go. To the extent to which our crisis is thus inherent or fundamental, the efforts to hold our course in the old channels are doomed to failure, nay, make the adustment worse. Any sociologist knows however, that it is inevitable that the effort so to conserve be made. I for one, believe that we are moving in new directions. Whether that direction be toward state capitalism of the Italian variety, or whether it be toward state capitalism of the Stalinesque type, I hazard no guess. But I suspect that the enemy the New Deal is fighting is no popular devil comparable to the Germany of 1917, that can be conquered and forgotten. Our foe is not temporary. It is perhaps perpetual, for I remember that the New Deal of Colbert in France that began in 1664, some provisions of which are all but identical to our present efforts, produced in the end Turgot and then later the French Revolution which removed government from business with the philosophical blessing of Adam Smith and the once sacred doctrine of laissez-faire.

THE sure thing is the certainty of great impending changes. The present administration may be voted out, succeeded by capitalistic fascism, but there will be no complete drawing back from the consequences of its attempts to try collectivism. The day of the common man has dawned, whether or not its sky be forever blue or much clouded. He may reduce civilization to a shamble. He may lift us to new cultural greatness. He may muddle along. Certainly the gains of 1900 to 1929 and especially of these hard won achievements of the 1920's, certainv the advantage of the AAA, will not be surrendered without a struggle. If America and the world are entering a grimmer, starker period than we have et known, they are, it is true, but a nistory of a period that has gone not to return. But we have surmounted other crises in our history. Surely when we see what Russia has done against odds beside which even our present difficulties are negligible, we cannot but believe that with our climate, our soil, our material goods, our leadership to which rural people have contributed so much, and above all our people, we will emerge from these dark days into the light. If so, these trends are but a prophecy of the progress rural America is yet to make. Progress in which, let us hope, education of the new days, including vocational education in agriculture, will have an increasing share in planning and

Code of Ethics for the Indiana Vocational Agriculture Teachers' Association

- I. Situations Involving Ethical Conduct
- Those applying particularly to the teacher as a teacher.
- 2. Those applying to working relationships with administrative agencies and superior officers.
- 3. Those applying to related agencies in the field of agricultural education.
- Those applying to working relationships with fellow faculty members.
- 5. Those involving relationships with other vocational agriculture teachers.6. Those involving relationships with
- miscellaneous agencies.
- II. Principles of Ethical Conduct
- 1. The teacher should maintain a sin-

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respect to all his supervised practice.

of such a study, I have outlined the kinds

of data which I think would be neces-

sary. (See Evaluation of Supervised

Farm Practice, page 144.) The data

would be secured from each student,

and then the combined data of all the

students in a department would give a

basis for evaluating the work of the

teacher in supervised practice. The re-

search committee of the Southern Re-

gion is considering such a study in some

of the southern states. Such a study

might include as many schools as de-

sired. Or an individual teacher might

make this study and evaluation of his

own supervised practice work. In short,

we need to evaluate our supervised

The next problem I have to suggest

My recent contacts with former students

convince me that the teacher of agricul-

ture may do more for a student during

the first ten years he is out than while

I know of teachers who continue to

serve their former students. Of one

teacher it is said that a former student

may not escape him unless he dies or

moves away from the community. My

prophecy is that we will have more and

more such teachers, and that they con-

stitute our greatest hope of increasing

the effectiveness of vocational training

in agriculture. Furthermore, I hope that

this development when it comes will de-

pend more for its guidance on careful

studies and less on trial and error. I

have only one suggestion in relation to

these studies. The great majority of

teachers, if my sampling is reliable, do

not know who the former vocational stu-

dents are in their communities. The

predecessors have left no record, and

other means of discovery have been over-

looked. The first step is that former stu-

dents farming in each community where

there is a department should be located.

lum. In our earlier years, curriculum

studies were numerous; now they are

relatively scarce. Today several states

are undergoing curriculum revision; the

methods of selecting content are now

quite agreed on, the methods of organiz-

ing content are still in a state of flux.

For example, a supervisor was in my

office recently. He is reorganizing his

curriculum. I suggested that a state

near his had made progress in the matter

of cross-section course. He does not

favor the cross section organization, but

I believe he would if he knew how

some states have overcome their ad-

mitted difficulties. In my opinion the

time is ripe for a re-study of course

organization and particularly of the

I hope that one of these four suggested

1. Financing vocational agriculture

My last suggestion relates to curricu-

period.

To show you the possibilities and need

cere belief in agriculture as a basic industry of society, should exercise a faith in rural folk and in rural life, and at all times reflect his attitude toward rural education by his sincerity of purpose and his desire to attain the highest possible achievement in his profession.

2. The teacher should give such publicity to the program of his department and its achievements that will enable the public to make a fair

appraisal of its value. 3. A teacher should maintain a personal appearance appropriate for his community and in keeping with his job, and should practice those principles of moral conduct in conformance with the best ideals of the community and of the profession which he represents.

4. A teacher should maintain a proper working relationship with such administrative agencies as his school board, trustee, advisory board, superintendent, state supervisor, itinerant teacher trainers, state director, state superintendent, and state board of education:

a. By recognizing and respecting the hierarchy of administration, b. By being punctual in response to requests, reports, etc., from

superior officers, and c. By co-operating with his superiors in administering their pro-

5. The teacher should maintain the proper working relationships with other related agencies in the field of agricultural education, such as the Farm Bureau, county and state agricultural extension divisions, the National Grange, Farmers' İnstitutes, local and state agricultural fairs, the United States Department of Agriculture, and emergency federal agencies:

a. By recognizing the place and function of the programs promoted by such agencies, and

b. By co-operating in the furtherance of such programs.

6. A teacher should co-operate to the fullest extent with his fellow faculty members:

a. By punctually attending and participating in local faculty meetings,

b. By participating freely in the extra-class and extra-curricular activities of the school,

e. By tactfully and courteously arranging the conflicts of his students with the program of other teachers, and

d. By co-operating with other teachers in bringing abou' remedial instruction among those of his students who are in need of such help.

7. The teacher should maintain a proper social and professional relationship to other vocational teach-

a. By showing an attitude of friendliness and helpfulness to one's co-workers in the profession in promoting interests of mutual benefit and welfare,

b. By helping others to maintain highest standards and ideals of the profession as to personal fitness and teaching efficiency,

North Carolina Vocational Division Handles Educational Phase of Rural Rehabilitation

From A. V. A. Report of ROY H. THOMAS, Supervisor of Agricultural Education, North Carolina



Roy H. Thomas

EARLY in the past summer a program of cooperation between tĥe rural rehabilitation division of the North Carolina Emergency Relief Administration and the division of agricultural education of the North Carolina State Department of Public Instruction, was worked

out whereby the division of agricultural education and its 255 teachers would handle the educational phase of the rural rehabilitation division.

The first project attempted was the putting on of a fall farm and garden campaign for farm families on relief. In North Carolina we can have a year around garden, and the fall gardens were the most in need of attention.

 $Administrative\ Set$ -up:

1. State supervisor of vocational agriculture, general director of the

2. Director of educational program, in charge of the campaign where work was largely promotional.

3. Garden specialist from state college who handled technical information and kept teachers supplied with seasonal information.

Teachers were allotted \$15 each for travel.

c. By co-operating with others in making such studies of the work and needs of the vocational agriculture teacher as will result in the promotion of higher standards for attainment, and

d. By refraining from any personal act of embarrassment such as chiseling, underbidding, gossiping, or any other act of unfair

8. The teacher should at all times actively co-operate in the promotion of the educational programs being furthered by miscellaneous community agencies, such as the church, service clubs, chambers of commerce or business men's organizations, the press, boy scouts, Hi-Y_f

a. By accepting posts of leadership in keeping with his talents and capabilities.

b. By carrying out to the best of his ability those duties and functions devolving upon him in such activities,

c. By co-operating in a lay capacity in all activities designed to improve the social welfare of the community, and

d. By preparing such materials for publicity as will meet the desires and standards of the public press.

What North Carolina Teachers Did:

1. Teachers confined their efforts to giving instruction in groups. They held on an average five lessons in each center, and each teacher averaged three centers.

2. The groups were assembled by the relief administrators and farm supervisors, as the teachers did not have this responsibility.

3. The teachers reached by instruction 28,860 persons and traveled 29,980 miles in going to and from these centers. Teachers of agriculture held one to four meetings each, at 573 centers with a total attendance of 18,152 or 130 per teacher.

4. Meetings were held in afternoons and nights.

5. The teaching was largely on a demonstration basis and the giving

out of elementary instructions. In many cases the groups met on the farms of certain men, and the teachers demonstrated the plant-

6. Seeds were furnished by the relief adminstrators and were distributed by the teachers at the meetings.

7. Relief administrators required people on relief to attend meetings or their allowance would be cut off.

Results:

A. Teachers reached a group not reached before, as these relief families did not, as a rule, attend evening classes.

B. Helped and improved living conditions and health of these families.

C. More fall gardens planted in state than ever before.

D. People got an idea that a fall garden was more than the growing of

E. Showed public the teachers were willing to cooperate in a program that would help relieve the families

F. Acquainted relief officials and the public (as there was much press publicity) with the program for teaching vocational agriculture.

Plans for the Future:

A program for 1935 will be worked out soon, as it is the desire of the Lirector Rural Rehabilitation that our department handle all the educational work. An example of one thing that will be included in the new program is:

The relief officials will place dairy cows with relief families. The job of the teachers will be to instruct the families on the care, feeding, handling of milk, and the growing of feed.

Our Cover

(Continued from editorial page)

Cash Enterprises

The cash enterprises furnished eight sources of income, some of major and others of minor importance. Seven Jersev cows were being milked, and the cream sold. There were 16 head in all, not counting 3 calves. The 75 White Leghorn chickens were raised on the place and furnish eggs for the market. The government alloted Glenn only 7 acres of cotton, but this furnished some income due to good farming practices. Then, there was some income from

minor enterprises, consisting of Irish potatoes, watermelons, a few head of hogs, and farm products such as peanuts and the like.

II. Home Supply Enterprises

From the looks of the group picture you can see that this family is well fed, healthy, and happy. There was a good home garden which produced something nearly the year round. The small home strawberry patch even furnished some extra berries to sell. There were eggs, chickens to broil and fry, pigs for pork, sausage and lard, and a sorghum patch for molasses. There was a 2½-acre tract of peanuts. The Farrows have a young home orchard which is not yet bearing, but Mrs. Farrow had evidently traded some of their products for fruit to the neighbors, for canned fruit was in evidence among the many cans of products saved for winter use. There were a few hives of bees producing honey for the home table.

III. Feed Enterprises

One of the first things that struck the writer was how this young farmer could keep so much livestock on this small hill farm during such a severe drouth, but he soon found out why. The yield from this 15 acres of corn was cut short, but good practices secured some badly needed corn, and the fodder was saved for feed. There was both a wild and tame meadow with Korean clover in it. His Bermuda pasture had three varieties of clover in it, and there were spring oats and late corn for feed. Cowpeas and grain sorghum followed the oats, and even the peanut vines were saved for feed. All of this showed that knowledge of plants and animals had been applied in a practical way during a real test, thus saving his livestock for the time when prices are sure to be better.

 $IV.\ Home\ and Farm\ Improvement\ Projects$

Some of the capital appreciation projects on the Farrow farm were completed. and many others are under way. All the tillable land except the new 23 acres is terraced, and this will be soon. Mr. Farrow built his own barn, cow stanchions, poultry houses, and brooder houses. The skill learned in high school farm shop is being used. With the aid of a carpenter and helper he was working on his new home the day of my visit. The old run-down farm of the old exploitation days is taking on the airs of the new constructive modern pioneer period. Of course there are many things to be done to renovate and reconstruct a farm of this type, but this young couple have the courage, knowledge, skill, and industry to do the job. Pastures are being cleaned and set to Bermuda and clovers. Fences are to be rebuilt, the young orchard is coming on, and the hours spent in home and farm improvements are growing in value as well as productiveness of both farm crops and family

V. Leadership and Recreation.

Somehow Glenn Farrow found time to drive to Couchdale F. F. A. Camp last August to meet with delegates from over the state to help form a state association of the Arkansas F. F. A. alumni, of which he is president. Back in his home (Continued on page 144)

March 1935 Agricultural Education

1. Paper presented before the Agricultural Section of American Vocational Association in December.

Needed Research in Agricultural Education¹

FRANK W. LATHROP, U. S. Office of Education



Frank W. Lathrop

 $R_{\rm these\,days\,is\,al-most\,\,in\,\,the\,\,posi-}^{\rm ESEARCH}$ tion of an orphan. The man of the hour is the emergency administrator who has to get things done. If he had time, he might base his program on careful painstaking studies. As it is, the most we can hope for is that

practice with a view to further strengthhe will utilize the studies already made. ening it. I am stubborn enough to insist still that any real progress in vocational agridemands a prophecy and a forward look. culture must depend upon a continuous It is based on the assumption that there program of research. It is not too late is still something to do for our all-day even now to lay out a national program students when they leave high school.

be the best investment of time and funds we have ever made.

My purpose now, however, is to point out just a few problems, which, I bein high school, that is, during the time eve, are common to all of us and which he is becoming established in farming. His economic, vocational, and parental might become a part of a national rerelationship are in their most critical

of research which, if carried out, would

search program. Longer ago than I care to count back I

made a study of the financing of vocational agriculture. One state modified its basis for distributing aid after the state director of vocational education read my bulletin. Sometimes a graduate student refers to my study, and some of them say it is partly wet. For some time after I re-wrote this thesis for the fourth time and saw it past the editors, I was nauseated at the thought of financing vocational agriculture. However, very few persons have paid any attention to the problem in the past ten years, and there

are many unsolved problems in this field.

To show the need for study in this field, I wish to make three comments. Twenty-one states used little or no state funds in 1933-34. Many states that have state funds are dependent on legislative enactment each year or two years. On the other hand, some states have made a permanent arrangement for state funds. his matter of state funds needs study. Again, the way in which states distribute funds to communities for vocational agriculture, along with the limit provisions, has far-reaching effects on local programs. State departments of education now have a wealth of data to enable research workers to study the effects of the different methods of distribution. Third, in some states the financial structure has been revamped since 1920. I refer to the Mort plan, which is essentially in force in some states now and will be in force in several other states. Perhaps I have gone far enough to show the need for study of the financing of vocational agriculture.

In a study of departments in small high schools which we are conducting at the Office of Education, an attempt is made to evaluate what the teacher does in supervised farm practice. This has suggested to me that we have taken the boy, or the project, or some other unit but never the teacher's work with

2. Evaluating the supervised practice activities of a teacher

cross-section principle.

(Continued on page 144)

studies appeals to you. These are:

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Methods



Developing Discussion Leaders

W. D. BOYLE, Agriculture Teacher, Preston, Idaho

TO BE ELIGIBLE for advancement I to the degree of State Farmer, a Future Farmer must be able to lead a group discussion for thirty minutes. How many boys that reach this degree have really acquired this ability? Many boys have the ability to solve problems by reasoning and thinking by themselves, but how many have the ability to lead a group in discussing a problem and solving it to the satisfaction of the

Is it any wonder that the average person, even with a college degree and several years experience, finds himself at a loss for words when the members of a group before which he is standing fail to respond or proceed to whisper about something foreign to the subject up for discussion. With these conditions in mind, I have attempted to train my students to become leaders of class

If the job of leading a group discussion is assigned without some preliminary preparation of both the boy and the class, the results are likely to be disappointing. The boy should be given some direction and advice, and the class should be led to see the need for that type of training in order that it will be in sympathy with the one who is attempting to act as conference leader.

An outstanding boy should be selected for the first job. He should be given his assignment a week in advance so that he will have plenty of time to become thoroughly familiar with what he is to teach.

Sometime before the first boy is to undertake to lead the class discussion, the teacher should bring the matter up in class and lead the pupils to see the need for such training.

Next, the teacher should use due care in selecting the jobs or problems which the first student may use in his duscussion. If complex problems are undertaken in the beginning, they may discourage both the leader and the class. I usually select problems which have a direct line of thought and those which are interesting and rather easy to solve. Examples of such jobs or problems are: Controlling Dairy Cattle Diseases, Selecting Breeding Stock, and When Should I Market Swine?

As the boy opens the discussion, the teacher should seat himself at the rear of the room in the role of a student, raising his hand only when necessary to help the leader in guiding the discussion. He should do this in such a manner that he does not take the responsibility from the leader. This can best be accomplished by asking questions rather than by answering them. In case the job calls for considerable writing on the blackboard, the class leader should se-

lect a boy to do the writing. After the first trial, the teacher should

exert every effort to make the boy feel that his mistakes were no worse than would be expected from any beginner, because he may be easily discouraged at this stage of the game.

After some three or four boys have acted as conference leaders, the teacher should direct the class discussion in summarizing the desirable or undesirable methods used by each. The teacher will find the students very critical and should avoid giving the impression that he considers himself an authority on the subject. At this time the teacher should bring out the necessity for an active group and one that is well prepared and willing to make a real effort towards solving the problem. The boys should be made to see that the most capable leader will fail with a silent group accustomed to having the leader supply all the information.

As the training develops, the class should be given an opportunity to discuss and analyze the methods used by each leader. Caution the class not to be too severe and by all means to be just. Soon the timid attitude will disappear, and the boys will beg for a chance of

another discussion. The teacher will find this job of considerable importance and help in many ways other than developing discussion leaders. It directs the attention of each student to the importance of preparation and attention in class work, and this in turn makes for better discipline because each one will feel that he is partly responsible for the conduct of

Just recently I have had another chance to test the value of this type of work. Illness caused me to be away from my classes for two days. Since available substitute teachers had not been trained to use the conference method, I suggested that one of my advanced students be put in charge of the classes. When I returned, the superintendent reported that the boy had put over the job in very nice shape. The students were well pleased, and the boy leader had developed from having had the experience and responsibility.

Agricultural Bulletins

Poultry Houses and Fixtures. Revised, 1934. (Farmers' Bulletin 1554.) Dressing and Packing Turkeys for Market. Slightly revised, 1934. (Farmers' Bulletin 1694.)

Parasites and Parasitic Diseases of Hogs. Revised, 1934. (Agriculture Denartment Circular 338.)

Horse-Breeding Suggestions for Farmers. Revised, 1934. (Farmers' Bulletin

Breeds of Draft Horses. Revised, 1934. (Farmers' Bulletin 619.) Alfalfa Varieties in the United States.

1933. (Farmers' Bulletin 1731.) Why Red Clover Fails. 1934. (Agriculture Department Leaflet 110.)

Storage of Sweetpotatoes. Revised, 1934. (Farmers' Bulletin 1442.)

The Barrel Seed Scarifier. 1934. (Agriculture Department Leaflet 107.) Bulbs from Seed. 1934. (Agriculture

Circular 311.) Flax-Fiber Production. 1934. (Farmers' Bulletin 1728.)

New Method of Self-Pollinating Cotton. 1934. (Agriculture Circular 318.)

Red Spider on Cotton and How to Control it. Revised, 1934. (Farmers' Bulletin 381.)

Protecting Plants in the Home Yard from Injury by the Japanese Beetle. 1934. (Agriculture Circular 326.) Farmhouse Plans. 1934. (Farmers'

Bulletin 1738.) Treatment and Care of Tree Wounds.

1934. (Farmers' Bulletin 1726.)

Individual Instruction in Vocational Agriculture in Louisiana

W. EUBANKS, Agriculture Instructor, Benton, Louisiana

DURING the past, instruction in vocational agriculture in the classroom has been carried on in a manner that has been questioned lately by many as to its value and effectiveness. No one course can meet the individual needs of all the pupils in an agriculture class. This problem had been confronting the teachers and supervisory staff of Louisiana for many years. Up to 1933 no plan had been developed in Louisiana that came very close to solving the difficult problem of classroom procedure in vocational agriculture: Consider individual pupil needs and at the same time consider the local community types of farming and the predominating types of farming in the

In the fall of 1933 a program was developed and approved in Louisiana, which, it was thought, would solve the problem of classroom instruction in vocational agriculture. This new program is essentially based on "the individual classroom instruction method." The individual method of classroom procedure simply means that each boy's program of supervised farm practice work is planned so that it fits, not only the needs of the community in which he lives, but also his own individual needs and those of his home farm. This program is so constructed that each boy can study in the classroom enterprises and jobs for which he has the facilities on his home farm to carry out. The supervised farm-training work thus enables each boy to actually put into practice what he studics in the classroom.

When following this method of classroom procedure, it may happen that twenty boys in a class are studying twenty different lessons at the same time. When this is entirely perfected, the teaching procedure is strictly on an individual basis. Some may question this, wonder how it can be done, and how a course is organized on this basis. The following discussion may help make this clear.

When a boy comes into the eighth grade, we start to put him through a basic course known as a program building course. When he has completed this, he has surveyed his home farm, tabulated and visualized the information found in the survey, and set up his ideal and his supervised farm-training program. After he has done this and has selected the enterprises he thinks he should follow or has decided upon the type of farming he is fitting himself to engage in, he breaks all of his enterprises down into jobs and makes his long-time, four-year plan or program of work.

From his four-year plan of work he builds his annual plan of work, that is, he takes the jobs that he intends to study the first year and makes a monthly plan of these jobs. To these jobs are added "supplementary farm jobs" that he has the facilities to carry out at home under supervision of his instructor. He now has his annual program of work completed for his first year. Then his second, third, and fourth years' work is planned as that of the

This plan of individual program building has worked nicely for me. It has, in general, been carried on successfully one year in Louisiana and is

now well into the second year. The thing that makes this scheme of course construction so successful in Louisiana is that the state supervisor's staff, the state teacher training staff, and a group of willing and cooperative teachers throughout the state are vitally interested in the plan. There are about one hundred teachers of vocational agriculture in the state who, at all times, have their shoulders to the wheel working hard and striving to make the program a success. By all working together,—a most helpful and cooperative state supervisory staff, a sympathetic and helpful teacher training staff, and interested and willing teachers,—we intend to carry out this program 100 per cent in the future.

Helpful Suggestions

JOHN L. ROTH, Hay Springs, Nebraska

AST fall the crops class at our school decided to sponsor a class project. After considering a number of different types of projects, "Selection, Grading, Testing, and Marketing of Seed Corn' was selected.

The first job was to find fields from which the class could select corn. Members of the class located fields and obtained permission from the owners to let the class select corn.

After discussing the type and variety of corn that would be most practical for this project, the students voted to select a yellow dent variety adapted to local conditions. This corn would be in much greater demand because most farmers prefer a yellow dent variety adapted to the climate of the region.

In selecting corn in the field, the following points were observed: 1. Select from high-yielding variety

Adjustment Act, we started working on

2. Select well-matured corn, to get

3. Select corn free from diseases and insect injury.

4. Select where plant has had no particular advantage as to soil or moisture.

full productivity.

As soon as the corn was picked, it was sorted at the farm for poor ears, defects, etc. After this it was stored in an old shed back of the farm shop, which had been moved and remodeled by the students. The board of education gave the class permission to use this shed after moving and repairing it. The boys also constructed corn-drying racks in this building.

Students in the class have made a germination test on this corn and are shelling, sacking, and grading it in preparation for marketing.

The size of this project is 50 bushels. The cost was 40 cents per bushel when picked last fall. Indications are that good seed corn will sell at \$1.00 per bushel, or more. If this indication is correct, this project will show a nice profit, but profit is only one factor in this project. Each member of this class will know how to select and handle seed corn after the project is completed. This practice and experience can easily be worth more than the profit it makes as a class project to each Future Farmer or farmer in actual practice on the home farm.

Advanced Agriculture Course

WILLIAM D. ROSS, Conrad, Montana

Δ T the Montana conference for agri-🗥 culture teachers held in Bozeman last summer, the idea was stressed that now, more than ever before, we should outline our agriculture courses so that our students would become more familiar with the economic re-adjustment taking place along agricultural lines.

With this idea in mind and with the suggestions of several interested farmers to help me, I drew up a course of study for my advanced class.

Although the course outlined includes some advanced shop work, the greater part of it is devoted to work more along economic lines. At the close of the school year we will have covered work on the following subjects:

- 1. The Agricultural Adjustment Act.
- 2. The Corn-Hog Control Plan.
- 3. Land Description.
- 4. Land Utilization.
- 5. County and State Taxation Stu-
- 6. Bills Introduced in Special Legislature.
- 7. Law As It Relates To The Farmer.
- 8. Co-Operative Marketing.

The class spent five weeks on the study of the Agriculture Adjustment Act. The fact that the County Allotment Committee was engaged in this work at the same time added much to the interest of the work, as it gave us its interpretation on questions relative to the allotment work. One of the committee also quizzed the boys to see if they knew 'their stuff" after we had completed the work.

After completing our study on the

land description. The boys drew a map of Pondera County, and from descriptions found in the local papers located various tracts of land given a wheat allotment.

The study of the Corn-Hog Plan has just been completed and the boys have a good understanding of how the plan is to work.

The county assessor is preparing material for us to use on the study of taxation. With this material we expect to be able to follow our tax dollar from the time it is collected until it is spent and see how it is apportioned out.

Mr. Hennessy, our senator from Pondera County, has sent us copies of various bills introduced in the House and Senate during the special session. We expect to discuss these bills in class and have several debates on them.

If we have time, we are going to study court decisions handed down in cases that pertain to water rights, livestock damage claims, right-of-ways,

think that anyone interested in outlining a course for his older boys will find that the above subjects will not only cover material that the boys should have a knowledge of, but that the material will be of interest to the students and instructor as well.

Black Acid-Proof Finish for Laboratory Table Tops

THE quantities mentioned are sufficient for about 8 to 10 square yards.

Solution A 125 grams copper sulfate 125 grams potassium chlorate 1000 cc. water

Boil until completely dissolved Solution B 125 grams aniline oil

180 grams hydrochloric acid 1000 cc. water

Stir until dissolved

The surface to be treated must be free from grease, oil, varnish, or paint of any kind. Apply two coats of solution A and B alternately, letting dry between coats. (The uneven green color that appears will disappear in the next process.) Now make a strong hot suds of Gold Dust or similar washing powder. Ammonia water may be used. Wash the table top with this, wiping off the surplus. The whole process may be repeated several times if top is not sufficiently black.

After the top is thoroughly dry, sandpaper lightly to smooth grain, oil with hot linseed oil one part and turpentine four parts. Do not allow to dry more than 15 or 20 minutes, then polish with a cloth. Repeat this several days in succession, and occasionally (twice a year) thereafter, to restore and protect the surface.--Vo-

THE fact is that we humans, old and young, enjoy tests, provided we are not going to be hung if we do badly. We educators have professionalized this sport of being tested. What we need to do is to give it an amateur status and keep it strictly amateur .--Dean Max McConn.

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and from high-yielding stalks.

Supervised Practice



Fundamental Skills in Agriculture

G. A. SCHMIDT, Teacher Trainer, Colorado



G. A. Schmidt

fundamental skills are involved, practical jobs which one engaged in farming must of necessity perform. Generally speakthese skills fall into three groups, namely:

IN EVERY type

L of farming many

(1) Livestock skills (2) Crop, fruit, and vegetable production skills

(3) Farm mechanical skills.

If, in agriculture classes, we are fitting boys to engage in a type of farming, we should have some assurance that the boys being trained are efficient in those fundamental skills that arise in the type of farming they are planning to enter.

It is generally assumed, I believe, that if a boy conducts a pork production project or a poultry project through several cycles of production, he will get supervised farm-training experience in the fundamental skills involved in these enterprises. The same would be true for other enterprises.

If a boy is fitting himself primarily to be a poultry farmer on a small, intensive poultry farm or a commercial vegetable producer on a small truck farm or a farmer in some other limited and specialized kind of farming, it should be possible for him to get in his project training the fundamental skills involved in the type of farming for which he is fitting himself. Even in this connection a boy would undoubtedly have need for

training in many farm mechanical skills. However, for a boy training himself for general farming this would not be true, and it would be impossible for him to carry projects in all the various enterprises conducted by a typical farmer on a general farm. Therefore, such a boy would have to acquire training in many farm skills outside of his project work.

In order to have some assurance that a boy will be more or less proficient in the fundamental agricultural skills he will have to perform, each teacher of vocational agriculture should have a complete list of the fundamental farming skills involved in the farming enterprises of his community. If all boys in his vocational agriculture classes would then check on the lists those jobs in which they need training, it would be possible for the teacher to formulate a list of fundamental farming skills that need to be taught. Some of these skills will undoubtedly occur in each boy's porjects; others would be listed as supplementary farm-training jobs, that is, jobs involving skills not arising in the

project part of the training programs of the boys.

Two lists of common skills arising in different farm enterprises follow. These lists of fundamental skills are not submitted as skills which teachers should teach their boys; they are submitted merely as an aid and as a suggestion as to what teachers might do in their communities with their boys if they want to discover in a systematic way some of the more important farming skills that they can teach to good advantage.

No mention is made here of the many skills in the farm mechanics group. Books dealing with various phases of farm mechanics usually enumerate the practical jobs involved in the different farm mechanical enterprises. In this mechanical field a check list for each enterprise can easily be devised by any teacher, and the use of such lists of jobs will make the teaching of farm mechanics much more purposeful.

A—Fundamental Livestock Skills

B—Fundamental Crop, Fruit, and Vegetable Production Skills

POULTRY

1 Fitting birds for

houses
8. Operating incubator
9. Brooding chicks
10. Culling a farm flock
11. Selecting pullets

12. Mixing dry mashes

1. Fitting stock for

show 2. Determining age of

horses
3. Detecting unsound-

4. Helping mare in de-

shoes
7. Judging horses
8. Trimming mane and

tail 9. Breaking colts 10. Cleaning and oiling

scratches
12. Fitting harness
13. Giving enema

BEEF

. Castrating calves

2. Dehorning
3. Marking for identi-

4. Trimming hoofs
5. Fitting for show

Judging
Judging
Dipping
Branding
Treating for scab
Butchering steers

livery
5. Trimming hoofs
6. Tightening loose

HORSES

show 2. Caponizing cock-

A-FUNDAMENTAL LIVESTOCK SKILLS

(-) Check jobs in which you are proficent.
 (*) Star jobs in which you need training.

SWINE

Trimming hoofs Removing tusks Castrating pigs

Oiling hogs Fittingpigsforshow

Judging
Judging
Helping sow to de-liver pigs
Ear notching pigs
Removing needle

teeth Butchering hogs Cutting up carcasses Making sausage

DAIRYING

Cauterizing calves Dehorning cattle

Denorming cattle Castrating calves Dipping for lice Ear tagging Fitting for show Judging dairy stock Trimming hoofs Testing milk

Testing cream Testing skim milk 12. Making butter 13. Making cottage

cheese 14. Sterilizing milking

SHEEP

Shearing Docking lambs

Castrating lambs litting for show Judging Ear marking

Dipping
Butchering sheep
Cutting sheep car-

Selecting seed the field

Curing seed corn Storing seed corn Calibrating planter Drilling in corn Check rowing corn Cultivating corn Irrigating corn

Harvesting corn Shelling corn Measuring silage . Shocking corn , Filling silo

SMALL GRAINS . Judging small grains 2. Sclecting seed

Treating seed Roguing field Harvesting Thrashing 7. Storing 8. Shocking grain 9. Building grain

10. Planting small

TREE FRUITS

Pruning fruit trees
 Planting fruit trees
 Pruning to control fire-blight
 Spraying fruit trees
 Thinning fruit

Pruning shade trees
Pruning shrubs
Transplanting ever-

greens 9. Grafting apple

erels
3. Grading eggs
4. Judging poultry
5. Killing and dressing scions
10, Top grafting a tree
11. Grading fruit
12. Packing fruit fowls
6. Treating birds for lice and mites
7. Cleaning poultry 13. Laying out an or-chard

B-FUNDAMENTAL CROP, FRUIT, AND VEGETABLE PRODUCTION SKILLS

Check jobs in which you are proficent. Star jobs in which you need training.

CORN Testing seed corn Judging seed corn

1. Treating the seed 2. Cutting seed potatoes
3. Preparing the seed

4. Planting the sced 5. Cultivation tato
6. Irrigating potatoes

Digging potatoes Sorting potatoes Storing potatoes 10. Mixing spraying so-

lutions
11. Spraying potatoes
12. Grading market potatoes 13. Sacking potatoes

FORAGE CROPS 1. Preparing the seed

2. Planting the seed 3. Irrigating
4. Planting the nurse

5. Harvesting nurse crop 6. Harvesting main

erop
7. Curing hay
8. Storing the hay
9. Building a stack

SMALL FRUITS AND VEGETABLES

1. Propagating small fruits
2. Winter covering

Winter mulching 4. Planting small

5. Thinning 6. Planning a garden 7. Growing seedlings

8. Growing seedlings in hotbeds

9. Growing seedlings
in coldframes
10. Spraying small

fruits
11. Blanching celery
12. Dusting small

Planning Freshmen Programs of Supervised Farm Practice

J. R. REES, Vocational Agriculture Instructor, Columbus, Indiana

EACH year the teacher of vocational agriculture is confronted with the problem of "selling" supervised farm practice to the incoming freshman class. A satisfactory program of farm practice with each boy is to be coveted, but just how to achieve such a thing is sometimes quite a problem.

A device used this year in the Columbus department of vocational agriculture may have some merits and prove to be helpful to teachers who are faced with a similar situation. The plan was thus: to have three or four boys from the upper classes of the department present the plans, records, problems, and achievements of their respective programs before the freshmen group of pupils. An opportunity was given to ask questions, and the results seemed quite der supervision; and besides, perform jobs not related to a specific project.

marked. Members of the beginning class

began immediately to be farm practice

"minded," and they realized that other

boys were carrying on such programs

and achieving certain worthwhile ac-

complishments. Coming from the boys

whom they knew, the impression seemed

to be all the greater upon them, and

they felt that it was not an imposed

rule that must in some way be fulfilled

It, likewise, had its effect upon the

boys who presented their programs of

farm practice and even upon those who

knew merely that such a thing was be-

ing done. It presented a direct challenge

to those boys as well as giving them an

opportunity of presenting a connected

story to a group. This in turn reacted

upon the freshman pupil, giving him a

more definite purpose to strive for dur-

What Is Expected of Super-

vised Practice?

ANTONIO TEXIDORE, San Juan,

L EARNING to do by doing" is perhaps one of the hardest and

most difficult things to put over in

many types of instruction, especially

those types not closely related to life

problems, due to the fact that the op-

portunities for application are not so

commonly found when the instruc-

Vocational agriculture should at all

times circumscribe to practical farm-

ing of the type being done in the com-

munity where a school is located. The

fact that it is so, makes it possible to

start teaching in the classroom and

complete the instruction by the actual

performance of the elements of in-

struction discussed, planned, or agreed

upon. This performance in doing a job

and, even more, the development of

skill in doing it is supervised practice.

The practices found in a farming lo-

cality, as a rule, are classified in three

1. The very old, out of style, ob-

2. The common, most usually adopt-

3. The progressive type which in-

It is perhaps just as easy to teach

a beginner any one of the three types,

but we must always work around the

second type with a continuous tenden-

cy of slipping over to the third when-

One of the most important jobs an

instructor has to do is to establish a

sound, practical, and constructive su-

pervised practice program with his

students. Success or failure here will

reveal the efficiency of the work per-

formed by the teacher. The final ac-

complishment in the training of a stu-

dent of vocational agriculture is that

he is left established in a paying farm-

ing occupation. This can not be done

unless the student has gone through

the developing of a supervised practice

the students have the opportunity of

participating in most of the facilities

In our case here in Puerto Rico,

program adapted to his own needs.

volves elements of nowness.

distinct types, as follows:

ed by all farmers.

ever it is advisable.

ing the coming year.

tion is taking place.

if they expected to get their credits.

Most of the students have an opportunity to participate in all phases of supervised practice by:

1. Participation in a group, class, or school project on the school farm.

2. Individual projects at home. 3. Supplementary farm jobs in the

school and at home. The most essential and important part of the supervised practice program is the emphasis to be given to

ome projects. There are several marked advantages of the home projects over other types of practice work which should rive them preference in our estimation. Some of the advantages are:

1. A strong sense of responsibility is created in the students. 2. The home project involves prin-

ciples of management as well as of operative ability.

3. It is developed under normal conditions at home.

4. The student is the only owner, and therefore, receives all the in-

We are expecting that all students have a supervised practice program. Those students who have no facilities at home, due to lack of land, will have their projects on the school farm. It is essential that a record be kept for each project whether at home or on

the school farm. The project work in which a boy is engaged should be closely related to the course of study for his group or class. In this way he will obtain the knowledges in the classroom, do the practical application in the school farm under the direct supervision of the instructor, and then do it at home on his own responsibility with occasional visits of supervision by the teacher.

It is most necessary that under normal conditions profits be made by the boys, otherwise the whole thing may be a failure, causing the losing of interest. A student should not be allowed to engage in supervised practice work in which he is sure to lose out. The best tool we have to determine approximately what the results will be is by making good estimates of re-

Let us have a complete program of supervised practice work properly planned and developed and with good records kept. Such a program will mean essentially three things:

a. Good teaching.

b. Good results.

c. Advancement of the agriculture of the community.

Long-Time Class Project

JOHN KRUGER, Capron, Illinois

EVEN years ago the crops class of the local high school constructed a 1,600-ear seed corn germinator. In the same year an agreement was made with one of the best local farmers, whose farm adjoins the school grounds, to select and test his seed corn for him. The crops class select as much seed provided for them to develop skill un- corn as they see fit, store it on racks

in the school building, test, shell, and grade it in the spring. The cooperating farmer receives half of the good seed, while the F. F. A. chapter sells the other half. This arrangement has been continued and is now going into its eighth year. The boys select from 20 to 30 bushels of seed corn each year. The cooperating farmers' corn has shown considerable improvement in the past seven years. The F. F. A. chapter has been forced to limit the quantity of seed sold from its half to individual farmers, because of excessive demand. This year several neighbors bought and selected their seed corn from the fields of the cooperator after the crops class had selected their seed corn.

Successful Poultry Work

E. RAWLS, Instructor in Agriculture, Center Cross, Essex County, Virginia

THE following brief account shows a financial summary of some outstanding work in egg and poultry production, and shows, also, how an enterprising student in vocational agriculture is developing in the poultry business. This young man secured an average production of 246 eggs per bird, which is very remarkable, and his total income of \$178.47 is also an outstanding accomplishment.

Randolph Palmer, a vocational agriculture student in the Lloyds High School, Essex County, Virginia, conducted poultry projects of 48 White Leghorn hens, 300 baby Rhode Island chicks, and 300 White Leghorn chicks during the school year 1933-34. The following is a summary of his work:

Total credits.....\$458.91 Total charges...... 312.66 Paid self for labor..... 32.22 Randolph began with 48 hens and

completed the year with 34, 8 having been sold as culls and 6 lost. His hens averaged 246 eggs per bird. He secured 300 baby Rhode Island chicks in January and sold 293 as broilers. He now has 116 White Leghorn pullets from 300 chicks secured in March.

Other projects carried by Randolph during the year were: 3 acres of oats; 3 acres of corn; 3 acres of cowpeas; 3 acres of Lespedeza; and 1 brood sow.

HE vocational agriculture teacher must have the cooperation of his superintendent and the high school principal if his work is to succeed."-Superintendent I. H. Schmitt, Sac City, Iowa.

Objectives or Activities

METHOD, in its truest sense, is a device through which an objective is attained. Interest is stimulated through the selection and organization of teaching materials which are, for certain reasons, attractive to students. If one wants to teach the art of reasoning, he selects material which will give practice in that phase of thinking.



Farm Mechanics



Securing and Arranging Farm Mechanics Jobs for Farm Boys

C. B. CAMPBELL, River Falls, Wisconsin

WHAT experiences and practices are most useful to the farm boy in a farm mechanics course in high school during these years of low farm incomes? How can the mechanics jobs serve the most useful purpose with least capital outlay?

With this thought in mind, we visited during the summer before school opened every boy who had enrolled in the farm mechanics course, and carefully checked with him and his father all the repair and construction work which they decided would be desirable on their farm.

A check list was provided wherein the jobs might be selected from the following group: glazing, painting, tool sharpening, woodwork, drawing, farm buildings, soldering, belts, pulleys, pipe fittings, cold metal work, blacksmithing, farm machinery, rope work, harness repair, gas engine repair, concrete work, farm lighting, and water supply.

The jobs selected clearly indicated that the majority must be repair work, with little new construction.

Twelve farms were visited; every farmer thought it necessary that his boy learn to cut glass and repair windows, but due to tenancy or uncertain ownership of land, only five boys furnished windows to be repaired. It was necessary for the instructor to secure windows with broken panes to be replaced, from people willing to furnish the glass.

Every farmer agreed that soldering was useful and necessary, and after the customary practice work, no difficulty was experienced in securing utensils which required repairs of some sort.

Tool sharpening was 100 percent favorable, with suggestions for sharpening auger bits, steel drills, planes, chisels, shears, tin shears, knives, axes, saws, and replacing broken handles.

Fourteen sets of harness were offered for oiling and repairs.

Seven farmers expressed a desire for new chisels and punches to be made, while 12 said retempering and refitting these tools would meet with their approval. Two farmers asked for repairs on trailers requiring some blacksmithing work, while another wanted fenders put on a tractor.

Woodwork constitutes a large part of the usual farm mechanics course. The following list indicates what the farmers wanted done. The number after each article indicates the number of farmers desiring work done.

Sled repair 1, hog trough 1, stepladder 1, neckyoke 1, singletrees 5, repair cart 1, self feeders 2, sheep feeders 2, build trailers 4, plan machine shed 1, poultry feeders 2, eveners 1, wagon box repaired 5, farm ladder 4, poultry nests 1, milk stools 1, wheelbarrow 2.

Painting jobs were restricted to painting articles made in woodwork, includ- to have.—Coleman Cox.

ing the trailers, self feeders, and wagon boxes, with the important addition of the running gears of six wagons.

Two farmers wanted old Ford motors reconditioned for feed grinding, while three offered small stationary engines for overhauling.

Rope halters were desirable for seven farmers, and halter leads for two; one wanted his boy to make rope for this

Farm machinery was offered for repairs as follows: Corn planter 1, grain binder 2, cabbage planter 1, hay loader 3, mower 7, disk 2, grain drill 1, spring tooth 1, hay rake 1, plow 1, spike tooth harrow 1, wagon reach and hounds 1, tongues 3.

Only one farmer offered an opportunity for construction of a simple water system. None wanted concrete work or sewage disposal.

There is always difference of opinion as to the arrangement of a mechanics course, but this survey convinced us of the necessity of offering work in fundamentals early in the year in glazing, tool sharpening, soldering, blacksmithing, and tempering tools. Dairy utensils have a way of springing a leak at recurring intervals throughout the year. If the fundamental processes have been learned, cannot repair work be done as it occurs during the year? The fundamental processes in blacksmithing must be mastered before a boy can build a trailer. Such a job also involves the use of the hack saw, taps, and dies.

With a variety of jobs indicated in this survey in woodwork and farm machinery, each boy will be required to be self reliant and possess the initiative and training in fundamental processes to work in a constructive way on his chosen

Probably the survey does not present an accurate picture of the work that will actually be accomplished. We have discovered this to be true in glazing, as before mentioned. It is also true of tool sharpening. Such work is cumulative, and boys find more tools to sharpen as they gain in experience and watch others.

At the beginning of the year, we made a plea for the farm shop, a bench to work on, and a definite place for tools. The class spent an afternoon visiting farms with shops, getting ideas and offering suggestions. A well-kept shop on each farm is our slogan. We have allowed boys time out to help put the shop in order, with good results. Three benches have been constructed. Arrangements for keeping tools in place are being made in every shop. It is too early in the year to predict the success of this feature of our plan, but we know it is a great stimulator and adds zest and enthusiasm for the farm mechanics course.

AM a great believer in luck. The harder I work the more I seem

Teaching Care, Repair, Adjustment, and Operation of Farm Machinery

E. L. RAINES, Instructor in Vocational Agricul-ture, Mound City, Kansas

ONE of the weak points of farm shop work in the past has been the lack of good farm machinery jobs and projects. This has been partly due to the fact that in times of prosperity we replaced broken parts with new, and when much repair work had to be done, we purchased a new machine, thus there wasn't a great demand for repair jobs.

Our farm shop work has consisted more in the building of new thingsself-feeders, hog houses, wagon boxes, etc. Farm machinery is more difficult to get to the shop because it is bulky and takes up lots of room. More work is required on the part of the teacher and student to locate such jobs, get them planned, and successfully completed. Farm machinery jobs are not standardized; many are unanticipated; and working plans, schemes of grading, and actual method of doing skills must be worked out, hence teacher and student have often steered clear of many good farm machinery jobs that should be worked out in the farm shop.,

Today we are faced with another problem, namely, that of doing more repair work, which has been forced upon us by the fact that farmers cannot purchase new material for new projects but must make the old wagon box, the old cultivator, and the old binder last a little longer. Through conditions not under our control, we have had forced upon us the problem of repair work. This article concerns itself with the organization of material for teaching care, repair, adjustment, and operation of farm machinery, under 11 headings.

It is not intended to discuss farm shop survey, but to organize and group under 11 units what might be considered a wellrounded course in farm machinery for second-year and third-year work.

SUGGESTED UNITS

- I. Mechanical advantages:
- 1. The three levers 2. Simple machines
- 3. Hitches
- a. Tractor
- b. Horse 4. Different pulleys

Better results will probably be obtained with Unit I if the application is made when needed rather than to exhaust the unit without definite practical application.

- II. Cutter bar, gears, pitman, and clutch as found on grain binders, mowers, and combines:
- 1. Replace, repair, and adjust
 - a. Guarda
- b. Sections c. Section guides
- d. Plates
- e. Cutter bar

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f. Pitman

g. Gears h. Chains i. Clutch

These type jobs are set up as common to the machines mentioned above.

III Chains: 1. Types of chains

Many times, chains are worn out before their allotted time because they were on backwards, or were not oiled.

IV. Replace wood parts:

1. Replace wood tongues in horsedrawn machines.

2. Replace other wood parts.

The replacing of wood parts requires skill in exactly duplicating the old piece.

V. Bearings and gears:
1. Replace and adjust bearings.

2. Adjust, repair, and timing of gears.

VI. Transmission of power:

1. Size and speed of pulleys 2. Type of pulley

3. Belt sizes, speed, and splicing 4. Kinds of belts

5. Number of plies

6. Shafting 7. Triangles

The study of these should be taken up and applied to machines with which the boy is working or is familiar.

VII. Tillage machines:

1. The common breaking plow

2. The disc plow 3. Shovel cultivator

4. Rotary hoe 5. Disc harrow

6. Spike tooth harrow

7. Lister

Under each of these headings on tillage machines can be found many jobs such as adjustment of cutters, alignment of wheels, sharpening of shears, discs, and cutters.

VIII. Seeders:

1. The common grain drill

a. Calibration

2. Broad-cast seeders

3. Corn planter

a. Calibration

IX. Hay tools

1. Hay rake

a. Bunch rake

b. Side delivery c. Sulky

2. Hay loader

3. Wagon

X. Canvas and slats:

1. Sewing and repair of canvas 2. Repairing of slats on binder can-

vas and reel

- XI. Depreciation and interest cost on common farm machines:
- 1. Maintenance 2. Housing

3. Relation of life to cost

In Number XI it is intended that a study will be made on some farm machines in the survey, to point out to boys just what constitutes depreciation. What is the average life of the average machine, in terms of years of service? Is housing necessary? Specific problems the boy is interested in the work, and

problem of depreciation should be tied up with interest on investment, arriving at a point where the boy realizes that a machine should return to farmer its worth in service or it is out of place as part of the farm machinery lay-out.

Motivating Ideals in Farm Mechanics

PAUL E. HOWEY, Auburn, Illinois

AT the beginning of the school year, I was confronted with the problem of developing certain ideals, namely, pride in one's tools, neatness and accuracy, and respect for school property. Each boy in mechanics checked out a metal tool box containing a hammer, cold chisel file, monkey wrench, pliers, screw driver, and a set of S wrenches. Each box and all its tools were stamped with a number. Each boy was given a number, and was expected to use those tools from his own box, and check in every tool at the end of the year. The larger tools were arranged in a systematic order on the walls of the shop where they could be easily seen and checked over at a glance. A three-minute warning is given the boys so that they may put up all tools in their places. The tools are sharpened, polished, and oiled at regular intervals. By keeping a careful check each day, the number of lost tools is very small, and no tool is kept in a broken state. The boys take pride in keeping their tools in first-class con-

Do We Think?

M. A. SHARP

IF FARM mechanics is to be educational, it must contribute more to the boy's mental development than to his manual training. If we would develop a boy's ability to think, we must provide opportunities for him to do some thinking. If we give him a detailed drawing of an object he is to make, with all directions for each procedure, what reason has he for doing any thinking?

It is admitted that in most cases this method is easiest for the boy and easiest for the teacher. Also, the maximum amount of work will be turned out by the group. But what have we done for the boy? Probably we have taught him to depend upon someone else to do his thinking for him and to furnish him with plans and directions. Also, he has learned to do as he is told. In other words, we have developed a follower, rather than a leader. After the boy leaves the school building and starts out to make his way in the world, he will have to meet and solve most of his problems himself. Teacher will not be there to tell him what to do. Neither will he be able to find a set of plans and directions that will fit the situation. If he has never learned how to think for himself, he will seek advice from those most willing to give it, such advice seldom being beneficial. The farm mechanics instructor has an excellent opportunity to teach the boy correct thinking methods.

He has three very important factors in his favor. First, the subject matter is, or should be, of a type which lends itself well to good teaching methods. Second, will clinch a lesson on this subject. The can readily comprehend the factors in-

volved in the problems presented. Third. the classes are usually small enough so the instructor can give individual attention. How shall we go about the problem of teaching the boys to think?

The first essential is that the teacher must understand the five steps involved in the thinking process by which we solve problems. These are explained quite clearly by John Dewey in his book, How We Think. The next step is outlining and planning in detail the method to be used in teaching the subject matter in the course. This does not mean that a detailed plan of every project must be worked out by the instructor. It does mean that he must know the thinking process, the subject matter, and the individual boy well enough to help him make his own plans, as he will have to do after leaving school. Those teachers who have forgotten the steps in the thinking process should read the reference suggested.—Iowa Monthly Bulle-

Put the Tools Away

M. A. SHARP, Iowa

ON'T say "Quitting time, boys." Say "Time to clean up," The teacher should attempt to establish firmly in the boy's mind the idea of always putting tools away and cleaning up his working area when he has finished a job or stops for the day. Habits acquired here will be retained the rest of his life, and neatness is essential to success.

Anyone experienced in observation of teachers can judge the efficiency of the instruction by the amount of organization apparent in the laboratory. If tools, equipment, and materials are lying around in a haphazard fashion, we may be sure the teaching is being

done the same way. All hand tools should be kept in a closed cabinet or tool drawers so they may be locked. While it is seldom necessary to lock up tools to keep them from being stolen, it is essential that all tools be kept in place, and this is not easy to do, even with locked cases. Many shops do not have sufficient tool storage space, but cases can be built without excessive cost. Built of 1 x 10 or 1 x 12 stock, they are easily constructed and rigid. Glass doors are seldom advisable, but if desired they may be made of storm sash

Every tool should have its outline painted in place on the case so the entire list may be checked in a few seconds. A light background, such as gray, with a dark silhouette is easily checked, does not show dirt quickly, and has a neat appearance. Do not use bright colors. If the tool outline is drawn with a pencil, the area inside the work may be filled with shellac, colored with dry lampblack or burnt umber. This will dry quickly and not run down the walls. Any of the quicksetting lacquers may be used.

economically,

Materials and equipment might just as well be neatly stored as left about the room wherever the boys worked last. There are many excuses, but very few reasons for not having a place to store everything. Cases along the

(Continued on page 144)



Future Farmers of America



The Future Farmer's Home

L. L. COLVIS, Chester, Illinois

SOME TIME AGO, at one of our Future Farmer meetings, we talked of buying F. F. A. project markers, so that, as one boy said, "You could tell when passing a farm, if a Future Farmer lived there." That the markers are good things, can hardly be disputed, but are we doing anything to make these homes of Future Farmers stand out without being labeled? It seems a little illogical, but nevertheless true, that some of our boys will almost religiously keep the weeds out of their corn, and still pay little attention to the weeds in the front yard. I have seen a boy spend an entire day making a shade for his hogs, when there was not the slightest sign of a shade tree anywhere near his house. And another boy who scrupulously practiced sanitation with his baby chicks, then let them have the run of the place, including the back porch, when they grew older. I do not intend this as a condemnation of the boys, but as an acknowledgement that they have been taught more of farming than of living. Sooner or later, as their education progresses, they are going to become dissatisfied with such surroundings.

We can speak at length about the intangible values of the farm, but they must be pretty hard for a young man to appreciate, if there is not a little beauty and comfort to go with them. A great deal of attractiveness can be added to many farm homes, with very little expense. Lawns, flowers, shrubs, trees, and walks certainly have a place on every farm. Electricity and water systems, while a little more difficult to acquire, might also be considered almost necessary luxuries. Surely these things play a real part in helping a Future Farmer grow into a happy, useful citizen. With this in mind, we are spending some time during each Future Farmer meeting this year, discussing how to improve the home and grounds. At the next meeting, one boy reports on Cost of Installing a Water System, and another on Desirable Shade Trees for a Farm Home. The boys are decidedly interested, and I believe are becoming more and more conscious of the practical possibilities of developing their own home into the kind of a place every boy secretly dreams of oc-cupying some day.—The Fan Mill.

Where to Get F.F.A. Supplies

THE number opposite the article indicates the official company, listed below, from which it may be secured: Armbands, felt (2) Badges, buttons, etc. (6) Banners, felt (2) Belts and belt buckles (1)

Caps, convention style (2) Caps, military and swagger style (3) Charters for chapters (7) Collegiate chapter pins (1) Cups, trophy (1) Cuts, emblem (4) Degree pins, buttons, and keys (1)

Emblems, felt (2) Emblem stickers (4) Envelopes (4) Felt goods (2)

Flags (6) Jackets, corduroy (3) Jewelry (1)

Keys, degree (1) Letterheads (4) Manuals (5)

March of F. F. A. (for bands) (8) Medals (1) Membership cards (4)

Metal markers (6) Music—"F. F. A. March" (8) "Hail the F. F. A." (4) Napkins (4)

Newspaper mats (4) Pennants, felt (2)

Pins and buttons, degree (1) Place cards (4)

Plaques (1) Plows, miniature (9) Printed supplies (4) Project markers (6)

Ribbons, prize (6) Rings, finger (1) Song, "Hail the F. F. A." (4)

State Farmer keys (1) Stationery (4)

Stickers, baggage and windshield (4) Sweater emblems (2) Trophy cups (1)

Uniforms (3) Watch fobs (1)

OFFICIAL SOURCES OF SUPPLIES

1. L. G. Balfour Company, Attleboro, Mass.—Jewelry

2. Staunton Novelty Co., Staunton, Va.—Felt Goods and Convention

Universal Uniform Co., Van Wert, Ohio—Uniforms and Caps

French-Bray Printing Co., Candler Building, Baltimore, Md.—Printed Supplies, Stationery, Emblem Cuts,

5. Farm Journal, Washington Square, Philadelphia, Pa.—Manuals

6. St. Louis Button Co., 415 Lucas Ave., St. Louis, Mo.—Celluloid Buttons, Ribbons, Badges, Markers, Flags, etc.
7. W. M. Welch Scientific Co., Chicago,

Ill.—Chapter Charters Cundy-Bettoney Co., Chestnut Ave.

J. P., Boston, Mass.—F. F. A. March (for bands) 9. Deere and Co., Moline, Ill.—Minia-

ture Plows

"My habits should be those which are

A Young Farmer's Creed

GEORGE M. STRAYER

66T Believe in life and growth and the joys which are to be derived from a healthy body and the zest of an active mind. Fresh clean air, a variety of work, and association with the basic elements of nature all have their

appeal.
"I believe that any worth while farmer must be able to think and study without guidance from others. He must be a thinker—not a mere imitator. Farming of the future will be a joy to those who participate only because it. will be increasingly a matter of intel-

lect rather than brawn. "I believe that it is essential that I have a sufficient knowledge of nature to understand the main processes of life, both animal and vegetable, as well as the foundation upon which human life and happiness depend. The common plants of the field are not common if we know how to call them by name. understand how they seed and grow. Insects are not just bugs if we know their classifications and life cycles. Soils are not just dirt if we know their uses. their classifications, and their composite elements. The farm and the field afford the world's greatest laboratory for quiet, unhurried study and constructive thought.

"To be successful I would be trained to use the tools of human relations with precision and accuracy. I must know anguage, both written and spoken, and know the use of numbers. The farmer of today is more and more acquiring the right to sit around the council table and solve his own problems and fight for his own rights.

"I believe that it is essential for me to know enough of history to understand the main achievements of man. It will guide me in my movements, give broader conception of life and more complete understanding of world

"I believe that every farmer must have not only a general knowledge of his vocation, but training for some particular branch of it. This is an age of specialization, and the farmer, as well as any man, must learn to specialize.

"To be able to get the most enjoyment from life, I believe that it is essential that I know nature, literature, music, and the other arts sufficiently to choose superior from inferior enjoyment. We must come to realize that there is a distinction between mere idleness and leisure, and cease to criticize constructive use of leisure time.

called ethical. I should know the full meaning of the words honesty, good Agricultural Education March, 1935

will, helpfulness, and cooperation. In cooperation I will find the satisfactory solution to many of my problems." Successful Farming, May 1934. (Note: Mr. Strayer is a graduate of the vocational agriculture department at Hudson, Iowa.)

Chapter Finances

T HEARTILY agree with H. M. Hamlin in his article in the June issue of The Illinois Future Farmer when he says, "The chapter should support itself." We solved that problem for the first time last year by means of plant sales. Chapter plays, candy sales, a large chapter project, and other means of financing that many chapters resort to seemed impossible for us here. Therefore, the chapter decided to buy some tomato seed for the soils and crops class to plant and care for until the plants therefrom would be of marketable size. This gave the class valuable experience in starting, transplanting, and growing tomato plants and paid the chapter about 500 percent on its investment. When the boys started to sell their

plants, they found they didn't have nearly enough to meet the demand. In order to get more plants they went to a local greenhouse and made a contract with the operator to sell tomato. pepper, cabbage, and cauliflower plants for 20 cents a hundred. They transplanted some of these, and others they retailed out at 5 cents a dozen. That was a small profit per dozen, but when nearly every boy in the chapter needs five to six dozen at home and sells many more to his neighbors and friends, it readily counts up. We found it profitable enough to take care of all our chapter expenses including the purchase of considerable recreational equipment. The only activity not financed in this way was our Future Farmer parentand-son banquet. The boys managed this by bringing in the raw food materials, and then with the help of several of their mothers they prepared it. A number of the members worked in the kitchen. Others acted as waiters and served the banquet, much to their own and their parents' delight. By means of some worth while activities I am sure most chapters can take care of their own expenses without requiring the boys' dad to reach down in his pocket for extra cash. O. F. Gacbe, Adviser, Salem Chapter, Illinois.—The Illinois Future Farmer, October, 1934.

Roadside Improvement By F. F. A. Boys

Built Flower and Rock Garden

SEEING an opportunity for roadside improvement and accepting a challenge have been demonstrated by the F. F. A. boys of Harrisville Chapter, West Virginia.

By building a flower and rock garden along U.S. Highway No. 50, the Harrisville Chapter of the Future Farmers of America responded to the request of the State Road Commission that every high school in West Virginia spend from one to two weeks in beautifying the highways. The Harrisville boys, working under the direction of their adviser. H. G. Riddle, selected as the site for their beautification project a plot of ground bordering on the federal highway, and began working on it early last spring. The whole area, about 50 by 100 feet, was enclosed by stone. Rock paths were made through it. A large stone chair was constructed, and three flower beds were built up of stones. The boys brought flower seeds and bulbs from their homes and planted them.

The State Road Commission had already built a stone drinking fountain on this spot a few years before, and cooperated with the F. F. A. members as they carried on the beautification work. As the result of this co-operation, a beautiful scene delights all those who pass by it.



Starting Roadside Improvement

A Community Bot Fly Control Program

E. HAMILTON, Instructor in Vocational Agriculture, Belmont, Wisconsin

N October 1933 the F. F. A. Chapter at Belmont, Wisconsin sponsored a school fair at which 21 colts were shown. On the day's program were included a nationally known horseman, Mr. Wayne Dinsmore, Secretary of the American Horse Breeders' Association, and a veterinarian from the Wisconsin College of Agriculture, Dr. B. A. Beach. This program aroused a great deal of enthusiasm and interest in horses. Dr. Beach's talk on control of bot flies and other horse parasites caused considerable discussion and interest among local farmers. Shortly afterwards the F. F. A. Chanter decided that a project to help the farmers rid their horses of parasites would be a good one to sponsor. The local veterinarian was approached, and he agreed to treat the horses for 35 cents each. An intensive publicity campaign was immediately launched in the local paper, explaining how bot flies injured horses and how they could be controlled. Two community meetings were arranged by chapter members. The agriculture instructor attended these meetings and explained the plan of procedure to rid the community of these parasites. The meetings were concluded by passing out sheets for the farmers to sign. Farmers in the community were kept in touch with the campaign through publicity in the local paper. Following the two sign-up meetings, every chapter member was given a signup sheet, which he took to his home community. When the sheets were brought back, they were given to the

local veterinarian, who notified the farmers when he would call on them. He also gave them instructions on the preparation of their horses for treatment. The carbon bisulphide capsule treatment was used.

When the final check-up on horses treated was made, it was found that capsules had been administered to about 1,200 head. These horses were owned by 140 farmers. In many communities 100 percent of the horses were treated. The total area covered was about 125 square miles. It is estimated that over 90 percent of the horses in this area received the treat-

This fall the chapter decided to carry on the project for another year. It was decided that the attitude of farmers toward the work would be obtained by a letter. So 100 letters using the F. F. A. letterhead were sent to farmers who had participated. Fifty-one replies were received. Practically all indicated favorable results as shown by bots and worms expelled, better health and condition of the horses, and less annoyance of the horses from nose flies during the summer. A second annual campaign has now been launched under the direction of the local chapter. The local veterinarian will treat the horses for 34 cents per head, and the chapter will receive 1 cent per horse for its part in the sign-up. The money will be used to help defray expenses on the annual camping trip to the north woods of Wisconsin.

The Gavel

THE GAVEL is the symbol of leadership and, in its broader sense, of representative self government. It is of assistance to the chairman in charge of a meeting to impartially administer the rules of order whereby the decision of the majority may be arrived at with reasonable promptness and yet the minority may have an opportunity to present its views.

As used by the experienced chairman. it is of assistance in maintaining orderly procedure and in inspiring pride and dignity in the group. To the chairman presiding for the first time it may in addition serve to inspire some self assurance in appearing before a group.

Although there are no set rules for the use of the gavel, chapter officers might well discuss its place and use in meetings. Ordinarily several raps of the gavel are made in calling a chapter meeting to order as a preliminary to the opening ceremony, and also should the presiding officer sometimes find it necessary to eliminate some distraction. Three raps of the gavel is usually the signal for all members to stand as, for example, in both the opening and the closing ceremonies when all speak together. One rap of the gavel may serve as the signal for the group to be seated. It may also serve to signify final action on any motion and, upon conclusion of the closing ceremony, the adjournment of the meet-

A well-made and finished gavel should be an essential part of the equipment of every chapter. The following plans may be suggestive of the usual size and shape

though they may be altered to meet individual preferences. An F. F. A. button may be inlaid in the head of the gavel. Any of the common hard woods, such as walnut, osage orange, hard maple, birch, hickory, or mahogany may be used. The value of the gavel will be greatly enhanced if it is made from wood of local significance, such as a piece of the first schoolhouse or the first log cabin in the county. A wax or oil finish is quite satisfactory, though a lacquer, French polish, or rubbed varnish finish may be used. A block may be designed to complete the set. This may be 4 or 5 inches in diameter, 1 and 11/2 inches thick and round, square, or octagon in shape. The under side should be hollowed out to make a sounding board.-The Iowa Future Farmer.

Put the Tools Away

(Continued from page 141)

wall, benches boarded up, or storage rooms may be used. If you have materials or equipment which can not be taken care of, get rid of it.

Storage of unfinished projects is always a serious problem. If wall cases are not available, and the benches may not be enclosed, perhaps projects may be placed in one corner of the room. Lumber racks may be built along the walls above the benches or suspended from the ceiling, and short pieces of boards kept in a scrap box.

The efficiency of your teaching is judged largely by the organization of your shop. How high do you want to score?—Iowa "News Letter."

Our Cover

(Continued from page 135)

community he is overseer of the local Grange, and neighbors say he is a dependable worker for all of those things that help the community life. Their farm is only a few miles from Danville where they have the advantage of churches and a good public school. They take part in the social and recreational activities planned by one of the strongest departments of vocational agriculture in the state. They did not graduate for good from the Lanville High School and Mr. Farrow like many others still attends the evening school classes conducted by Mr. T. H. Abboud, the vocational agriculture teacher. Young Farrow and the others joined the voluntary cotton acreage reduction program, accepted the allotments, and co-operated with the government in the New Deal

As the writer drove back to the city with all its problems of relief and unemployment, he felt better, for he realized that America with all her wonderful natural resources can solve her social and economic problem if our people will only have courage and place their shoulder to the wheel in an intelligent, industrious, and fair minded way. If misery is allowed to result, is that not real evidence of human atavism and decadence? Should it not be easier to distribute surpluses fairly than to wring an abundance from poor exhausted natural resources? This generation can and will meet the challenge!

By using all of the courage, industry, and thriftiness of their sturdy sires, our young people can add to their sterling qualities those of the new frontier—the spirit of cooperation, the integrated attitudes of interdependence, and the Christian fairness of a balanced economy with parity so necessary for a true economic democracy planned in the great New Deal.

Out there on the "new frontier" young men and women are already rebuilding rural America. The sun is just rising on these new modern pioneers, but those who have the courage, industry, and thrift of their sires will develop the "mind stuff" to meet the needs of the new world.

Needed Research in Agricultural Education

(Continued from page 135)

3. Extending vocational agriculture beyod the all-day course

4. Curriculum reorganization

These are a small sample of our needed research.

Cooperative Work in Supplying Information for Teachers and County Agents

THE Mississippi State Vocational Board is cooperating with the Mississippi Experiment Station in compiling and organizing for publication experimental information for teachers of vocational agriculture and county agents of the state. Each of the two cooperating agencies bears one-half of the expense of the project. C. F. Clark, 1929 Master Teacher of the Southern Region, has been secured for the work.

Experimental data on specific subjects are taken not only from the Mississippi Experiment Stations but from all stations in the United States where they are applicable. One bulletin has already been issued, Winter Legumes. Others to be issued are: Planning and Feeding of Farm Animals, Corn Fertilizers and Varieties, and Cotton Fertilizers and Varieties. The bulletins are to be issued in such a manner as to bring out the economic phase of the question as well as the technical phase.

EVALUATION OF SUPERVISED FARM PRACTICE

y					Example
1. Boy's name and 2. Number of year 3. Grades in which 4. Does boy live of the control of the co	ыs enroned in a ch agriculture is	griculture, i offered	ncluding 19	34-35	John Jones 4 9, 10, 11, 12 No
5. If not, what ar 6. Status of fathe	r. if farming a	wner landle	ard routen	wi f	rrangement th tenant on ther's farm
laborer	, ,		********		Landlord
7. For what type	of farming is he	preparing.		······{ and	tton major, l corn, poul- try, swine
	ē.			1934-'35	
8.Enterprises— 1931-	32 1932-'33	1933-'34		Size of enterprise on farm, including projects	
Cotton 1 acre	2 acres	2 acres	2 acres	43 acres	
Swine 1 sow Poultry	125 pullets	150 pullets 100 hens	100 pullets 125 hens	210 pullets 230 hens	Major proj- ject 1933-'34 cotton
Corn		2 acres	2 acres	2 acres	
Soy beans			1 acres	11 acres	;
TI MULL OF SPOAG	t no ownership, tices recognized 1933-'34	nts land or no ownersh d as desiral	stock, share ip or returnation ole practices	rent, R	ents land (cash)
12. Number of used 1	practices previo	usly adopted	l on the hom	e farm	5 1
13. Other supervised	practice, 1933-	'34	$\cdots $ But	Culled poul ilt cement v	try flock vater tank
14. Number of project 15. Number of project No. 8 above)	eta incomplata	. 1032 /24 /	yn in No. 8 a not shown	L	z nogs 3
Tio. o above)					1

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