THE VISITOR

Devoted to the Interest of Agricultural Education in Minnesota Schools

VOL. VII February, 1920 No. 6

HIGH SCHOOL AGRICULTURE

B. M. Gile, State Supervisor of Agricultural Education, Writes of Agriculture in Minnesota Schools.

"Practical agricultural courses taught to those who are following farming as a business is one of the most effective means of improving farm life conditions. Boys who pursue agricultural courses in the public schools of Minnesota do in most cases live on the farm and have participated in farm activities since childhood. They are not only taught modern methods in farming, but are given a vision of what it is possible to accomplish on the farm as compared with other business opportunities. They are taught to read and write better and given a thorough grounding in such subjects as mathematics, science, history, and citizenship.

"Following or coincident with the work in school, the boys in Smith-Hughes agricultural classes are required to carry out in practice on the home farm, under the supervision of the agricultural instructor, the modern methods of farming that are taught in school. The state and federal governments, in order to encourage such training, are assisting towns located in communities where farming is the chief business, to finance such courses. Schools wishing to obtain such aid must enroll a reasonable number of pupils who wish to take such training and must meet certain requirements as to rooms, equipment, and character of instruction and community work. The instructors for the agriculture of such courses must be practical farmers and in addition be graduates of colleges of agriculture and have some training in the principles and methods of teaching. In time, such schools should be within the reach of every Minnesota boy who expects to farm. By offering such courses in connection with established high schools, the necessity of building special and expensive buildings where the pupils must leave home for long periods to attend school and where much special equipment must be provided, is obviated. There are in Minnesota this year forty-three high schools offering vocational agricultural courses to farm boys and a few town boys who will work on real farms during the vacation period. Excellent results are being accomplished in these schools. Such schools as those at Spring Grove, New Richland, Fairmont, Madelia, Montevideo, Hector, Cokato, Sauk Center, Grand Rapids, Park Rapids, Tracy, Albert Lea, Henderson, St. Peter, Thief River Falls, Alexandria, and Sandstone are typical vocational agricultural schools. For the farm boy over fourteen who may not have completed the eighth grade and who is unable to enter school September 1, an opportunity is furnished by offering six months or less of class room training. Twenty-five of the vocational agricultural schools are offering six months' courses and fourteen schools are attempting short courses and evening courses.

Seventy-three schools in Minnesota in addition to the purely vocational schools have special agricultural departments and many of these are doing excellent work. The trend in these schools is to give more time to the agricultural work and to give more attention to the personnel of the classes so that the work will function in farm practice. At present, the work in these schools varies from a purely text book pursuit of the subject for one period by town boys and girls to that type where suitable laboratory work is connected with farm practice by farm boys.

Boys so trained in the public schools are going to produce a generation of farmers with better education and a larger vision of the almost limitless possibilities of farming as a business, and they will make of the farm a comfortable home as well as a place of business. The high valuation of land and the specialized phases of farming have changed conditions so that it is no longer true that "any fool can farm," but the reverse is true—that if a man can not make a success of farming he can get a living in town. The new education gives a very rigid test. "What does the student know" must be supplemented with "What can the student do."

All persons who are interested in actually improving living conditions in the country must fight to overcome the feeling on the part of a great many farm

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Published monthly by the Division of Agricultural Education, University of Minnesota, University Farm, St. Paul, Minn.

Entered as second class matter at the postoffice at St. Paul, Minn., under the act of August 24, 1912.

Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized August 2, 1918.

people that for a young man to aspire to become a good farmer is something to apologize for, that to be a farmer is not quite so honorable as to aspire to become a lawyer, doctor, or storekeeper. It is no uncommon thing for parents to send their boys to school with specific instructions to prepare for some other business, although this thing is less common now than it was ten years ago. Advice from ministers and teachers with purely so-called cultural training is partly responsible for this condition.

If it be true that the farmers of the nation are the foundation of our economic, political, and social development, then it is right that the government should offer to aid the public schools in adjusting their work to meet the needs of our future farmers, so that the educational standards of farmers shall be at least equal to those of any other class in our nation. The girls and women on the farms are at least as deserving of all the comforts and conveniences of a modern home as are those in the villages. When the schools have succeeded in materially increasing the amount of proper training among the young men who become farmers, the social life and living conditions will be far more attractive than those in the villages."

B. M. Gile

CLUB SEEKS SPEAKERS

The Agricultural Education club of the College of Agriculture, University of Minnesota, is a voluntary organization of college men who are preparing to teach agriculture. The club meets on alternate Tuesday evenings to consider such matters as will better prepare members for their teaching duties in addition to what is included in their regular college courses. They endeavor to have one or two speakers each evening and enjoy hearing from those who have had experience in Minnesota schools where a department of agriculture is maintained. The officers of the club would like to avail themselves of the presence in the Twin Cities of superintendents and agricultural teachers of the state and to have them address the club. Special meetings can be called if speakers can not be present at the regular meeting times. If superintendents and teachers of agriculture who expect to be in the Twin Cities and who are willing to give informal talks to college men who expect to become teachers of agriculture will communicate with the chief of the Division of Agricultural Education or the president of the Agricultural Education Club, University Farm, St. Paul, arrangements will be made if possible to call the men together. It is thought to be of mutual value to superintendents, agricultural teachers, and prospective teachers.

WHY PRICES ARE HIGH

The following extracts from an address by Prof. H. G. Warren of Cornell University to students at the College of Agriculture are interesting and instructive.

"Prices are high for two reasons—the shortage of goods and financial inflation. Financial inflation is the major of the two. The shortage of goods has been caused by the destructive operations in the war areas, and by the waste of productive men killed in the war, but chiefly by the transfer of labor from productive effort to war work. Financial inflation, however, is the primary factor in high prices at present. There are 5.4 per cent more cattle in the world than there were before the war, only 7 per cent fewer hogs and 1 per cent fewer sheep. The decrease would not have much effect on prices. The primary thing is inflation."

"Profiteering, hoarding, price fixing, high wages, and high prices of farm lands are results of high prices and not the causes. Hoarding is not the reason for high prices, for there is less in storage now than before the war. If the government had not limited the price of wheat, it would be higher. The high price of farm land is due to increased prices for farm products. High wages are the result of advances to equalize increased costs of living.

"Prices will continue high until the shortage of goods is made up, possibly for three or four years. When the shortage of goods is made up, there may

be a hesitation of business or a financial panic with a decline in prices. Price deflation will also come about when our debtors begin paying their debts, and prices will then come down, but gradually, and will probably never reach the pre-war level."

GLUTEN TESTS FOR FLOUR

The following is an interesting exercise for the boys in the agronomy class. It will help to make more significant the study of wheat.

Gluten Test

Object: To determine the amount of gluten in a flour.

Materials: Balance, spatula, high-grade flour, low-grade flour, potato flour, white cup, water.

Method: Take 25 grams of flour and with an iron spatula stir in enough water to make a heavy dough. Roll this into a ball and add cold water and leave for about one hour. Then work the starch out by rolling over with the fingers while held under water. Change the water frequently until no more starch can be noticed in the water. Remove the chunk of protein material (it is called gluten in flour) and work it over and over with the fingers until no more water can be squeezed out. Weigh and calculate the percentage of moist gluten* in the flour. The exercise should be repeated by using a low-grade flour and some flour similar to potato flour.

	High grade	Low grade	Potato flour
Weight of flour			
Weight of moist gluten.			
Percentage of moist gluten.			

1. Why does the flour whose gluten is most elastic make the best bread?

2. What would be the trouble in using potato flour or corn flour for making bread?

*If this can be dried in some way it can be expressed on dry basis.

EXCHANGE DEPARTMENT

So many of the State Supervisors of Vocational Agriculture and Teacher Training Departments are issuing news letters similar to the Visitor that we have decided to start an exchange department in which we plan to reprint such materials as we feel may be of interest and value to the men teaching agriculture in Minnesota.

Judging Beef Cattle

The following suggestions on judging beef cattle are taken from the Weekly News Letter published by the United States Department of Agriculture. It is a review of Farmers Bulletin No. 1068. This bulletin should be in the hands of every teacher of agriculture.

"A real need in agricultural regions today is more widespread knowledge of how to judge livestock properly. While the judging of the finest animals is likely to remain an art in which relatively few persons can attain the highest standing, nevertheless farmers as a whole should be thoroughly familiar with the general principles of judging stock."

"In learning to judge beef cattle it is necessary to become familiar with the location and names of different parts of the animal. The names are similar in all classes of livestock, and can be learned easily by referring to annotated illustrations or diagrams. The names of wholesale cuts of beef carcass correspond quite closely to those of the live animal, the only difference being that the carcass contains fewer parts."

Three Classes of Cattle

"From the butcher's standpoint, cattle may be divided into three classes: fat cattle, feeders, and breeding cattle. The first comprises animals ready for the butcher's block; the second is the "unfinished product," and the third constitutes the class from which the others are produced. In fat cattle, one must judge according to what the cattle are at the time. In feeders, the animals which give promise of putting on the biggest and cheapest gains, and developing into the best beef form when fattened, are the ones desired. In breeding cattle, the true beef form is of prime importance, but there must also be assurance that the beef characteristics will be transmitted to the offspring."

Suggestions About Judging

"In judging a class of cattle or inspecting a single individual, one should first make a general survey of the animals or animal, examining the general features from a distance and noting the general outline and typical beef form.

When first approaching an animal note the front view and the features of the head and the width and depth of the chest. On moving toward the side note the depth of the body and the lowness of the flank. The rear view will give the width of the back, spring of the ribs, and thickness and development of the hind quarters, particularly the thighs and twist. After a survey of the animal from a short distance a close inspection

of the various parts of the body should be made, beginning at the head.

"In the case of beginners, judging work usually should commence with the use of the score card, after the various parts of the animal have been identified and the use of the card has been explained. One should make a complete examination of the individual before the various cuts are noted on the card. The score card is intended primarily for beginners, and is to be used in learning the details of comparative judging. Comparative judging is employed exclusively in placing the awards at public beef-cattle shows. Practice tests may be confined to selecting the best individual in a class of cattle of the same age.

"As one becomes more proficient, animals of different ages may be judged, but the sexes should be kept separate. In comparative judging one must examine the various parts and make direct comparison, keeping in mind the parts which are relatively the most important.

"The judge-to-be should gradually acquire facility in summarizing the total of the qualifications of each animal. Use of the score card is a step toward efficiency in the difficult task of comparative judging. Only in close competition in comparative judging does the experienced judge need to place side by side the smallest details. However, in many judging contests, this becomes necessary and the judge may finally be required to make his decision upon relatively fine points."

"If I were asked to say what I think is one of the chief advantages of vocational education, I would say that it gets a reaction immediately. The average school course often stuffs students for some future emergencies. Before vocational education assumed the position it now occupies, we were learning things to use *some day*. Vocational education centers itself on things to be used now." Dr. Blome, State Director of Vocational Education, Arizona.

"While it is now generally conceded that vocational subjects have an important place in the high school program of studies, it is becoming clearer day by day that we should consider even the agricultural subject matter from a standpoint not too narrowly vocational. To be sure, in agriculture we want to arouse the boys' interest in the every day problems of the farm and make them meaningful, but the teacher who aims to provide only such knowledge and skill as may be cashed in at the bank, without leaving them with a broader vision of life on the farm and in the community, and of the possibilities for real satisfaction in country life, is hitting short of the mark. That is to say, we should organize and present our subject matter in such a way that it will function beyond what is ordinarily considered its vocational value. Agricultural subject matter is now so comprehensive and rich that there is plenty of opportunity for the teacher to use his resourcefulness in arousing intellectual interest, creating new needs, and inciting to efforts toward improving community conditions. Let us keep in mind that 'The development of the boy is the end point and subject matter is the means'." News Letter, North Carolina State College.

"Agricultural Education today covers everything which has to do with life on the farm. War taught the people the great handicap of ignorance, and the masses to respect science as they have never respected it before. The result is that the American people have a deep rooted respect for practical education on things that pertain to vocational work." A. C. True, Tennessee News Letter.

"A piece of burlap stretched over a section of your blackboard, or on a wall, makes a good temporary bulletin board on which to pin pictures, agricultural articles of interest, laboratory directions, assignments to collateral readings, etc." Tennessee News Letter.

We are pleased to note the new form of the North Carolina Agricultural Education Monthly issued by the state supervisor of agricultural education and the department of vocational education, North Carolina College of Agriculture and Engineering.

NEWS NOTES

One of the Vocational Agriculture classes at Blue Earth has made a study of the principles of leveling and surveying. As part of their practice work the boys surveyed the school playgrounds and made a map to scale. The boys became interested enough in the work to go on and lay out and plot a tile drain system on the home farm of one of the students in the class. Later they surveyed a slough and hill pasture.

Hugo G. Klumb, agriculture instructor at Pine River, will leave to become field man with the Racine County School of Agriculture, Rochester, Wisconsin. The work will be largely supervision of Smith-Hughes project and club work.