THE VISITOR

Devoted to the Interests of Agriculture, Manual Training, and Home Economics in Minnesota High Schools

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EDITORIAL

HOME ECONOMICS IN MINNESOTA HIGH SCHOOLS.

The home economics in Minnesota high schools, like the agriculture, has spread and developed so rapidly that there has been little time to organize it upon sound pedagogic and scientific bases—so busy have we been in finding teachers, arranging equipment, and otherwise adjusting ourselves to the new situation. Superintendents, high-school principals, and home economics teachers in high schools and colleges are beginning to realize that we must soon begin to organize our courses of study in ways to improve their scientific and pedagogic foundation and sequence, and to make more efficient correlations with the other high-school studies.

They now see that "a little cooking and sewing in the grades, followed by a little more cooking and sewing in the high school," is not fully meeting the situation, but that the secondary course in home economics is to be a four years' course planned in all its parts for the proper education of young women.

This means that it shall not only contain instruction in foods and textiles, pedagogically and scientifically sound, based upon fundamental principles and dealing with essentials instead of unimportant details, but that the correlations with chemistry, biology, physics, and other secondary subjects shall be established in such a way as not only to re-enforce the home economics work, but to make a more complete and well-rounded high-school course for women.

A few years ago this could not be done because the college courses in home economics had not been developed sufficiently either to point the way for the high schools or to prepare the teachers to carry out the plans when formulated. This is no longer true. College teachers who have taken advantage of the latest and best courses in general sciences and the home economics offered by the leading American universities, and who have had experience in secondary schools, are now well prepared not only to prepare secondary teachers of home economics properly, but to render valuable assistance in the formulation of the secondary courses of study.

City superintendents to whose already heavily burdened shoulders have been added the supervision of manual training, agriculture, and home economics, are beginning to feel the necessity of more expert knowledge regarding better organized courses of study and thoroughly prepared teachers in home economics. They express the conviction that superintendents should be prepared to judge the soundness of the teaching in home economics as they would that in algebra, physics, or English. They say that the course of study in high-school economics should be as sound, strong, educational, and valuable as any other high-school work and should be based upon the same general principles, that secondary teachers of this subject should have a thorough college course of four years above a good high-school course; that this course should contain a thorough grounding in the fundamental sciences, should be consistently correlated, and should contain thorough and definite preparation in pedagogy; and that the high-school teacher of home economics should be taught methods of organizing home economics in high schools, courses of study, equipment, methods of classroom, laboratory, and extension work, and also have actual teaching experience under expert guidance.

When teachers are so prepared they will enter the high schools with definite plans and purposes, confident of themselves and their departments because of the pedagogic, scientific, and practical soundness of their work. The best modern departments of college home economics are preparing teachers in this manner.

A needful thing at the present time to hasten development in this field is active and systematic coöperation among the high-school home economics teachers, the city superintendents, and other supervisors of this work, and those who are preparing the teachers in Minnesota to the end that these particular problems may be solved.

The greatest harmony already exists, but some feel that definite steps should be taken through conferences and other means to reap the benefits of the good things that are being done in various parts of the State, and to spread the good plans and ideals abroad more fully and rapidly. **The Visitor** will welcome suggestions as to how this can be done.

QUACK GRASS ERADICATION.

Project. A coöperative project between the Agricultural High School and some responsible farmer to demonstrate an efficient and feasible manner of eradicating quack grass, and to ascertain, if possible, the approximate cost of the operation. This project to extend over two or three years, if necessary.

Outline. A responsible farmer having several acres of well-drained quack-grass land agrees to permit the use of the land, to furnish the necessary implements for planting and cultivation, to furnish or perform all advised horse and manual labor, and to plant such crops as advised by the high-school agriculturist. He also agrees to keep an accurate account and report regularly all of his expenses connected with the project, including all hours of horse and manual labor connected therewith, and to report all returns from said project to the high-school agriculturist. He further agrees to permit the general public to make frequent observations of the method and progress of the project, whenever the same does not cause inconvenience to himself or damage to the project or other property. The high school agrees to furnish frequent advice and personal inspection in regard to the management of the projects; to furnish the necessary report blanks and prepaid envelopes; and to record all data concerning the progress and cost of the project and to supply the coöperating farmer and the public in the community with a frequent statement of the facts.

Management of the Project. The management must be such as will obtain results. Farmers rarely care for experiments properly. A two or three-year rotation with a strong tendency to cultivated crops is best. Only well-drained land should be used.

The following rotations are examples:

1. Corn, corn, and oats.
2. Corn, rye, and corn.
3. Corn, potatoes, and corn.

Poatoes may be substituted for corn, if desired, or vice versa.

4. Summer fallowing is very successful in eradicating quack grass.

If the tract of land used in this project is considered large enough, more than one of these methods may be followed. For all these methods, the land should, if possible, be plowed in the fall and kept disked so as to keep the quack grass down at that season. The whole secret of quack-grass eradication is to prevent the formation of leaves. This will cause the supply of food stored underground in the rhizomes to be exhausted and the plant killed.

No method will be more certain to eradicate quack grass than plowing the ground about every 10 days throughout the season. If deemed advisable, because of the mellowness of the soil, the plowing may be less frequent, a disk harrow being used between plowings, but this method is very expensive and no returns are secured from the land. It is therefore, undesirable except in extreme cases.

Rotation 1, of corn, corn, and oats, is very efficient. In all this work no implement is more effective than the spring-tooth harrow, as it tears out the rhizomes and leaves them exposed. It is not so effective where the quack grass is in patches as the harrow scatters the rhizomes.

If the ground is not fall plowed, it should be plowed as early as possible in the spring and the disk and spring-tooth harrows used enough to prevent growth of the quack. The corn should be checked, and should receive clean cultivation throughout the season, being hoed, if necessary, after the corn is laid by. If possible, the corn should be cut for silage or fodder so that the land may be fall plowed, and worked during the fall and spring preparatory to planting to corn the following year. The second year in corn, followed by thorough preparation for small grain, should entirely eradicate the weed.

For rotation 2, the land should be handled as in 1 for the first year. Sow rye in the corn in the fall. Plow the land as soon as the rye is removed the second season, work the land all fall, manure if possible, and plant to corn.

Rotation 3, should be handled just as in 1 and 2 the first year. Fall plow, if possible, and work thoroughly during the fall with disk or spring-tooth harrows. The spring-tooth harrow scatters the quack grass when it is in patches, so it should be used only where the whole field is sodded. Plant to potatoes the second year, fall plow and work as before, checking in corn the third season.

Any of these rotations, if the crops are properly cultivated, should be effective.—E. C. Davis.

THE TRAVELER

During the farmers' short course at Park Rapids the superintendent of public schools furnished a novel entertainment one afternoon and evening. The regular session of school did not begin until three o'clock in the afternoon. From that time until 5:30 the regular forenoon work was carried on. Then intermission corresponding to the noon recess lasted from five until seven o'clock. From seven until nine the regular afternoon session was conducted. A large number of parents and friends were in attendance, visiting different departments. At nine o'clock the visitors and students gathered in the assembly room, where a short informal program was given, the main feature of which was the reading of two prize essays by high-school students and two by grade pupils on the subject, "How I Can Improve My Village." The general discussion at the close of the evening program showed that a large majority of the people were anxious to carry out some of the suggestions made in the essays. Such gatherings cannot fail to inspire greater interest in civic improvement, in better citizenship, and in the work of the schools generally.

The Thief River Falls high school boys have been doing some very practical work in connection with their manual training. They made a model of a dairy barn on the scale of one inch to the foot. A Minneapolis lumber company secured the model and is exhibiting it for a week at a time in their various yards in Minnesota, Iowa, and South Dakota. Some of the boys also made a complete set of heavy bobsleds.

The agricultural department at Cokato has made 2,500 wealthy apple grafts this spring. These grafts were distributed among the farmers and pupils. The students were required to make the grafts which were given them.

CORRESPONDENCE

At the suggestion of the **Visitor,** R. L. Hegnauer has sent in the following statement, which sets forth some of the features peculiar to the agricultural work at Wells. The **Visitor** does not care to go on record as endorsing this plan for other places, although it may be the wise one under the conditions which exist at Wells.

"The agricultural situation at Wells is undoubtedly different from that of other schools in the State. Our work along the extension line is not as good as in most other places, therefore, we feel that our school farm must serve more as a demonstration than anything else. The school owns twenty acres of ground upon which are all the buildings necessary to make it a fairly good little farm. There is plenty of barn room for horses, cattle and hogs. It is my good fortune to live on the farm where I can see that the stock is given proper care.

"We are practicing both the grain and the live stock system of farming. For next year we have rented twenty acres aside from the twenty acres we own, giving us forty acres to work. We plan to arrange the ground so that we can practice a good three-year rotation of corn, small grain, and clover, with two or three acres of alfalfa standing for six years. In the live stock work we plan to carry all the hogs and cattle that we have feed for, and not to sell a pound of any of the crops, except possibly the wheat. The amount of live stock kept will, of course, be determined by the amount of feed we produce.

"Thus far we have bought and sold stock just as suited our conditions. In regard to the stock kept on the farm, I will only consider the time since June 13, 1913, the date on which I took charge of the farm. The inventory might be taken four times from June 13, 1913, in order to give some idea in regard to the amount of live stock kept.

Invoice June 13, 1913.

"3 high grade Holstein cows.
"2 high grade Holstein heifers.
"90 Plymouth Rock chickens.

September 13, 1913.

"4 high grade Holstein cows.
"1 Shorthorn cow.
"2 high grade Holstein heifers.
"8 shoats.
"1 brood sow with 5 pigs.
"69 sheep (consisting of ewes and lambs).

"The sheep were used to clean up the corn field and were only fed about seven weeks, during which time they were out in the corn field continually. The pigs were also fenced off in the corn field, where the corn had been cut, but where a great many ears had been knocked off by the corn binder.

January 13, 1914.

"4 high grade Holstein cows.
"3 high grade Holstein heifers.
"1 high grade Holstein calf.
"3 lambs.
"5 hogs.
"60 Plymouth Rock chickens.

March 13, 1914.

"3 high grade Holstein cows.
"1 high grade Holstein calf.
"5 brood sows.
"1 Chester White boar.
"3 fat hogs.
"2 mares (one to foal this spring).
"80 Plymouth Rock chickens.

"Thus far we feel that our live stock has been a good thing. We have tried to keep good stock, and to take care of it as any farmer should. A record is kept of the cows, which includes the amount of milk they produce, their test and the feed consumed. We have no experimental plots on the farm, but try to make the school farm purely a demonstration farm."

The following statement which was sent in upon request from the **Visitor** by B. M. Gile of Bemidji may be of interest to other agricultural instructors who are desirous of promoting the raising of alfalfa:

"During sixteen schoolhouse meetings held the past fall, I talked alfalfa and illustrated my theme by means of stereopticon views. Believing that a trial plot in the communities where interest was aroused was a good thing [illegible] money enough among a few business men to buy seed for twenty one-acre plots. The plan was then submitted to the farmers to furnish seed free of charge for one acre located along the main road, provided that the applicant would prepare the ground and conduct the plot for two years under the direction of the high-school agriculturist. Applications came in rapidly and the plots have been selected so as to place them in various communities in all directions from Bemidji. Seed was obtained at a very low price and about ten bushels have been ordered by farmers of this vicinity. Nothing has aroused as much interest in alfalfa-growing as these trial plots. It has resulted in a great many planting it who would not otherwise have done so."

NEWS

For the benefit of those interested, we are printing the names of the agricultural instructors in the various schools of the State: **Colorado:** F. C. Tripp, Lake City. **Illinois:** J. R. Foster, LeSueur; R. J. Garber, Morgan; A. F. Laurence, Norwood and Young America; L. S. Stallings, Stewart; W. E. Hedgcock, Albert Lea; G. M. Harner, Cloquet; A. J. Herbolsheimer, Glencoe; J. P. Sheay, Hutchinson; R. L. Hegnauer, Wells; O. J. Schwartz, Graceville. **Indiana:** C. H. Schopmeyer, Beardsley; A. Z. Arehart, Benson; L. P. Doyle, Dassel; R. O. Bridgford, Grove City; L. M. Butler, Hallock; C. D. Dunwoody, Mazeppa; J. O. James, North Branch; W. P. Brodie, Olivia; S. Leaming, St. Peter; S. A. Colliver, Sandstone; L. H. Hauter, East Grand Forks. **Iowa:** W. K. Dyer, Argyle; W. W. Schmitt, Bagley; E. G. Cort, Brown Valley; W. C. Hicks, Cass Lake; C. E. Watts, Granite Falls; P. A. Johnson, Harmony; L. E. McMillan, Lake Crystal; V. C. Miller, Madelia; M. W. O'Donnell, Mantorville; A. C. O'Banion, Pine Island; H. J. Boyts, Plainview; Franz Krause, Renville; G. S. Ellis, Stewartville; E. S. Miles, Villard; A. G. McCormick, Windom; E. S. Olson, Winthrop; Claude Wentsel, Ada; C. B. Campbell, Deer River; C. R. Shumway, Mankato; R. C. Pollock, Owatonna; A. J. Secor, Pipestone; L. A. Reynoldson, Red Wing; C. W. Hendricks, Spring Valley; Q. P. McKelvey, Worthington; J. A. Krall, St. James; F. E. McCall, South St. Paul. **Kansas:** C. E. Lyness, Annandale; E. H. Martin, Blue Earth; F. T. Rees, Brooten; V. M. Emmert, Buffalo; Ned Smith, Caledonia; W. T. Parry, Elk River; E. H. Grandfield, Howard Lake; J. H. Goheen, Lakefield; B. B. Baird, New London; H. E. Kiger, Park Rapids; R. O. Swanson, Sherburn; E. C. Magill, Wayzata; H. L. Popenoe, Alexandria; G. Hancock, Faribault; O. M. Kiser, Hector; J. S. Jones, Madison; E. L. Westover, Milaca. **Maryland:** P. R. Little, St. Louis Park. **Massachusetts:** B. Ostrolenk, Canby. **Michigan:** F. P. Cowing, Fosston; E. F. Juergens, LeRoy; C. B. Olney, Minneota; Harry Olin, Rush City; A. G. Bovay, Jackson; J. A. Waldron, Carlton; J. H. Hamilton, Rushford. **Minnesota:** F. M. Hillman, Breckenridge; P. S. Jordan, Hastings; E. O. Rustad, Lanesboro; D. C. Dvoracek, Montgomery; H. M. Morck, Monticello; D. M. Goode, Pine River; Paul Carpenter, Red Lake Falls; P. E. Sturges, Roseau; F. G. Allison, Walker; A. J. Olson; Waseca; L. Uptagrafft, West Concord; J. I. Swedberg, Cokato; A. J. Lashbrook, Fergus Falls; E. W. Vancura, McIntosh; K. A. Norsen, Sauk Center; Henry Werner, Thief River Falls; C. L. McNelly, Willmar. **Missouri:** Ralph Loomis, Bird Island; R. B. Smith, Maple Lake. **Nebraska:** W. L. French, Austin; W. J. Rupert, Wheaton. **New York:** W. J. Corwin, Grand Rapids; W. H. Hamilton, Mora. **North Dakota:** W. P. Stapleton, Akeley; E. B. Hunt, Elmore; Ole Neraal, Warren; H. O. Herbrandson, Nashwauk. **Ohio:** A. C. Brookley, Adrian; W. E. McComas, Dodge Center; H. D. Drain, Mountain Lake; R. F. Crim, Slayton; L. H. Fudge, Stephen; L. M. Bloomfield, Hinckley; J. C. Quimby, Rochester. **Oklahoma:** L. O. Jacob, Anoka; J. G. McCall, Blooming Prairie; W. E. Watson, Herman; E. Kilpatrick, Long Prairie; A. E. Whiteside, Sauk Rapids; A. A. McPheeters, Two Harbors; A. E. Webb, Sleepy Eye. **Ontario:** W. V. Longley, Shakopee. **Pennsylvania:** G. A. Amidon, Litchfield. **South Dakota:** Roy Quinn, Atwater; C. B. Gurslee, Detroit; John Swenehart, Jordan; Percy Huntemer, Melrose; P. V. Finley, Redwood Falls. **Wisconsin:** R. A. Humphrey, Chatfield; G. W. Householder, Dawson; L. A. Henke, Elbow Lake; G. E. Wilson, Lyle; J. J. Doerschuk, Royalton; J. M. Walz, Tracy; W. H. Gustafson, Truman; M. T. Lewis, Winnebago; [illegible] Kasson; E. S. Billings, Lewiston; A. M. Field, Northfield; J. S. Klinka, Little Falls.

The legislature of Ohio has recently taken important action in revising the school laws of that state. The new legislation has been enacted in the light of the results of a thoroughgoing investigation of educational conditions in Ohio, carried on by a commission previously provided for. In looking over the nine different provisions made by the new law the writer was surprised to find that they were practically all in operation at the present time in the State of Minnesota, some of them having been established here for many years. It is very complimentary to the people of Minnesota to find that the Ohio provisions, so familiar to us, are considered there to be a most remarkable step in advance, which they probably are, considering past conditions there.

Many of the men have been testing corn for the farmers of their communities. Mr. Lashbrook, teacher of agriculture in the Fergus Falls High School has, since January 1, tested 40,800 ears. Has any one a record that exceeds this? Most of this is school corn, although about 45 bushels belonged to farmers.

P. L. Johnsrud, who will graduate in June from the College of Agriculture, University of Minnesota, has been elected instructor in agriculture at Virginia, Minn. Mr. Johnsrud took charge of the work April 1 and will make a feature of garden work in the upper grades this summer. The board of education has provided the department of agriculture with an eighty-acre farm.

W. H. Gustafson, who has been at Truman during the past year, has been elected instructor in agriculture at Little Falls.

Edwin Bauman, a senior in the College of Agriculture, University of Minnesota, has been elected agricultural instructor at Herman for the ensuing year.

Thief River Falls, and not Red Lake Falls, should have been given credit in the March issue of the **Visitor** for continuing its steer-feeding this year.

Bernhard Ostrolenk, agricultural instructor at Canby, has issued a bulletin descriptive of several contests that he is running and also outlining a plan by which students may get credit for work in agriculture done outside of the school.

The high school at Slayton has issued a pamphlet entitled Murray County Corn and Pork Contests. It was prepared by R. F. Crim, of the department of agriculture.