

THE VISITOR

Devoted to the Interest of Agricultural Education in
Minnesota Schools

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PROFESSIONAL IMPROVEMENT

The time for the Intensive Training course for the professional improvement of teachers in service will be from July 8 to July 16. One or two days of this time will be given over to the program of the State Association of Agricultural Instructors.

Special emphasis will be given to problems in farm management and its relation to instruction in high schools and problems in project work. Provision will be made for daily conferences where the teachers will have an opportunity to hear and become acquainted with men who are prominently connected with the development of vocational education under the Smith-Hughes law.

A circular giving detailed announcement will be mailed to each teacher some time in June. Set aside July 8 for this special work, which is designed to help us do a better job next year.

SUMMER INSTRUCTION

This issue of the Visitor will no doubt find most of the men closing up the class-room work in agriculture and preparing themselves and the students for the summer work. Let us not forget that a very important part of the summer supervision of home projects should be real, genuine instruction. The boy should not feel that the main part of the project is to get done with it. He should feel that the project work makes it possible for him to keep in touch with the agriculture teacher and through him receive help and instruction during the entire growing season. Each visit should mean a conference discussion of those things most needed at that time, and references and assignments should be made so that the boy can use part of his time in actual study of the problems before him. The teacher should appreciate the fact that each visit brings an opportunity to encourage and inspire the student and to help him solve the new problems that naturally come up during the progress of the project work. A project may be carried on and completed and still be a failure unless the boy has gotten something besides physical exercise out of it.

A PRACTICAL EXERCISE

We reprint below a rather practical exercise on germination carried on by the class in agriculture at the Lewiston Consolidated school, where H. B. Swanson has charge of the work in agriculture. The results were tabulated and mimeographed so that each student might have a copy. These were used as a basis for classroom study.

We realize, of course, that experiments of this kind should be duplicated and checked in many ways before they are to be taken as authentic, and we hope each class in agriculture will repeat the work each fall for several years so that a check may be had on previous results. In this way the work of the students one year may serve as a means of interesting students in succeeding years. Would it not be interesting for a group of agriculture teachers to have their classes in Field Crops do some of this work and then exchange reports? The Visitor believes that such coöperation would vitalize the work in agriculture and would be pleased to learn of places where such coöperation is practiced.

The following, taken from a letter from Mr. Swanson, explains how the work was carried on.

"Am enclosing a sheet giving results of an experiment worked out by the Farm Crops class demonstrating the effect on germination as a result of different methods of storing seed corn, and places of storage. Seed corn was gathered last fall and stored under as many different conditions as possible. The boys ran a germination test on the corn last week with the results tabulated below. I am also giving some questions the students were asked to answer using the results of the experiment as a basis for their replies.

"Germination as Result of Different Methods of Storing Seed Corn, 1919

| | Per cent— | |
|---|-----------|-----------|
| | Strong | Weak Dead |
| 1. 10 ears in barn, ears dry when stored, barn well ventilated. | 98.3 | 1.7 ... |
| 2. 20 ears, well dried, alternating inside and | | |

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STAFF

A. V. STORM
D. D. MAYNE
A. M. FIELD
J. V. ANKENY
W. P. DYER
SHERMAN DICKINSON
G. F. HOWARD
T. A. ERICKSON
GEORGINA L. LOMMEN

| | | | | |
|--|--------------|--------|------|-----|
| outside every 7 days | every 7 days | 0.97.0 | 3.0 | ... |
| 3. 10 ears in open shed, cold and dry | 0.97.0 | 3.0 | ... | |
| 4. 110 ears in attic, dry but not heated. | 0.97.0 | 2.5 | 0.5 | |
| 5. 40 ears in laboratory, warm and dry | 0.97.0 | 2.5 | 0.5 | |
| 6. 10 ears in cool dry box, ventilation poor | 0.96.6 | 2.0 | 1.4 | |
| 7. 10 ears in cellar, dry, warm, poor ventilation | 0.91.6 | 5.0 | 3.4 | |
| 8. 10 ears over boiler, very dry, very warm | 0.88.3 | 11.7 | ... | |
| 9. 10 ears in air-tight box | 0.85.0 | 10.0 | 5.0 | |
| 10. 10 ears wet and frozen | 0.37.0 | 18.0 | 45.0 | |
| 11. 10 ears outside, husks off | 0.33.3 | 16.7 | 50.0 | |
| 12. 10 ears outside, husks on | 0.30.0 | 22.0 | 48.0 | |
| 13. 20 ears in crib closed in, poorly ventilated, corn slightly heated | 1.0 | 5.0 | 94.0 | |
| 14. 20 ears in crib, outside | 100.0 | | | |

"Answer or discuss each of the following, giving numbers of the above experiments to prove your conclusions.

1. What effect does early drying of seed corn have on germination?
2. How does the temperature of place of storage affect germination?
3. How does ventilation of storage place affect germination of seed?
4. Of what value is seed corn selected from the crib?

5. State fully your reply, in letter form, your suggestions to Mr. Brown as to how he is to obtain and handle his seed corn—below being a copy of his inquiry.

"I have recently moved up here from Missouri, bringing some seed corn along. I bought a crib of corn that was on the place. This corn appears to be of a different type from my seed. Should I plant the seed I brought from Missouri or select seed from the crib? Seed corn is hard to buy here because of a shortage. What kind of ears should I pick out? Will it be necessary to test this seed? How should I go about to test seed?"

Signed, J. H. Brown.

6. Make a list of desirable storage places for seed corn."

BOOK REVIEWS

Essentials of Poultry Raising, by B. F. Kaupp. This is a text-book written for vocational agriculture schools and an attempt has been made to arrange the subject matter according to seasonal sequence. The book contains suggestions for several laboratory exercises, and outlines some projects in poultry. The book is illustrated with many good pictures and drawings. 136 pages, B. F. Johnson Pub. Co., Richmond, Virginia. Price \$1.20.

Every Day Chemistry, Alfred Vivian.—This book is designed as a text in high school classes in chemistry especially where courses in agriculture and home economics are given. The aim of the author has been to present those facts and principles of organic and inorganic chemistry that are necessary to an understanding of the important close relation of chemical phenomena to daily life. Simple laboratory exercises that may be performed with a minimum of apparatus are suggested. The book is so written that boys and girls may study the first 35 chapters together, and then separately cover the remaining chapters that are of particular interest to each group. 548 pages. American Book Company.

Why not have a visiting day when all the project boys and their parents and friends visit each of the projects the various boys are carrying on this summer? Each boy would be delighted to tell the visitors the story of his project. A better sentiment in favor of vocational agriculture would result in the community.

VISUAL INSTRUCTION

The boys of the agriculture classes at Renville took subscriptions for the Country Gentleman and earned \$50 which they turned over to Mr. Reiley to apply toward the purchase of a stereopticon for the agriculture department. As a reward for their efforts a banquet was held in the agricultural rooms on March 10. Superintendent L. G. Mustain spoke on the work of Renville high school; R. K. Steward, of O'Connor Brothers State Bank, talked on the Federal Reserve banking system and three of the boys responded to toasts on their experiences of last year and their plans for the coming season's work.

Large meat-cutting charts for cattle, hogs, and sheep, may be had by addressing the Domestic Science Department, Wilson & Company, Chicago. These charts can be used to advantage in livestock work. The location of the various cuts may be plainly established and their market value may be found out and discussed by the students. A very interesting game of Butcher Shop may be played, especially in the lower grades, by cutting out the charts and having one or two persons act as butcher and the other members of the class as buyers. The names of the various cuts may be determined by a visit to the local butcher where the student can learn to recognize the cuts and to know their approximate retail cost. After this their relative food values, etc., may be discussed.

We are able to supply a few sets of slides on potato diseases and the eight standard varieties of potatoes recommended for Minnesota. Additional sets of charts from the International Harvester Company have been received lately. We can now give better chart service.

A pictorial pedigree chart of Carnation King Sylvia may be obtained by writing to Carnation Stock Farm, Consumers Building, 220 South State St., Chicago, Ill.

A set of poultry lecture charts may be obtained from M. M. Johnson Incubator Co., Clay Center, Neb.

A good set of charts on commercial plant foods may be obtained from the Soil Improvement Committee, National Fertilizer Association, Chicago, Ill.

ILLUSTRATIVE MATERIAL

Each teacher of agriculture will recall how sorely he needed more illustrative materials for his class room instruction during the past year. Nature is about to bring forth an abundance of every thing that is needed in the line of plant materials but unfortunately she does not gather it and store it for winter class room use. Will you not resolve **now** to make a complete collection of all material that can be used to make the instruction more interesting and more practical next year. Thank you! Now please do not break your resolution.

STUDENTS FOR NEXT YEAR

There are no doubt many departments of agriculture in the Minnesota schools where more students can be accommodated than were in attendance last year. It is desirable for each teacher to plan his summer activities so as to get in touch with the young men in the community who should be interested in the courses in vocational agriculture. Would it not be a good plan to visit the rural schools and become acquainted with such graduates as are not planning on going to school next year, and make an effort to get them to take the work in vocational agriculture? In connection with your club work you will have an opportunity to meet many boys who should know about your work. Plan to attend farmers' club meetings, picnics, sales, etc., in order that you may acquaint people with the service your high school department is ready to give them. Your enrollment for next year will depend largely on what you do this summer.

NOTES FROM THE FIELD

Dual Purpose

The Agriculture instructor must be a good class-room teacher and also a good community worker. The city superintendents of schools in Minnesota are intensely interested in the work of the agriculture department in their school system. They have come to think of the agriculture teacher as a sort of dual-purpose teacher whose interest and influence is as great outside of the class room as it is inside. That the superintendents appreciate this dual relationship is shown in the following, quoted from a letter from a superintendent:

"Can you recommend someone who can come out here and make good? He has got to be a man that can get

out and meet the farmers and make friends and converts, and at the same time a man that can win and hold the respect and liking of the students. We don't want any wind-broke cast-off that will be out-distanced the first quarter; give us one that will run stronger the last quarter and come in under the wire about six lengths ahead of his closest competitor."

Minnesota can be made a better fruit state if more of the agriculture men will emphasize the value of spraying. The following from a letter from Miss Corwin, Northfield, shows some interesting results for the summer of 1919.

"The pruning and spraying demonstrations were a decided success. They resulted in apples 75 per cent more perfect than any other year and at least 40 per cent increase in yield. In one case they had had no marketable apples for several years. In another case the daughter came into the classroom in September to pay the spraying bill of \$6 (this covered the expense of materials used), and when I asked her if her father was satisfied with the spraying and if he thought it paid, she replied, 'Hm—I should say he does. We've sold \$100 worth of apples (early ones) and the late trees are just loaded. For the three years we have been on the place we have scarcely had a perfect apple to eat.'

"I put on a display of sprayed and unsprayed fruit with placards of diseases, etc., at the county fair which elicited numerous questions."

The boys in the department of vocational agriculture at Austin, Minnesota, W. O. Lutz, Instructor, have been doing some very practical work in the farm shop course. As a result of the work the boys are taking home self-feeders for hogs, stock racks, fruit ladder, horse eveners, and a wagon box.

Five self-feeders were made, each having a capacity of thirty-two bushels of grain. The boys figured out their own plans, with the aid of suggestions which they gathered from bulletins. The dimensions of the feeder are as follows: Width at top of hopper 36 inches, straight height of hopper 31 inches, width across bottom of hopper 14 inches, length of feeder 7 feet 8 inches. The material cost \$17 and the boys completed the work in about 30 hours.

EXCHANGES

Purposes for which pictures may be used

1. As a substitute for concrete material
2. To supplement concrete material.
3. As a means of establishing ideals.
4. For developing an agricultural atmosphere.

H. P. Barrows, Oregon News Letter

Classroom Equipment and Arrangement

The physical condition of our classrooms is a matter of more than passing importance and should receive more attention than has usually been given it. If a classroom is attractive to students an agreeable association is formed for both the room and the work conducted in it—all other things being equal. The question then arises: What makes an agricultural room attractive and how can the arrangement augment the efficiency of the teaching?

Some classrooms in themselves give very little indication of the kind of work conducted, being so barren of agricultural material, pictures, or charts. On the other hand some rooms are literally strewn with material of all kinds, but in too many cases in a very unkept condition. Pictures and charts are seldom if ever changed but left to spoil with dust and to be torn by air currents. A better way would be to display the material bearing on the topics being studied and then to change this material as the subjects change. There are, no doubt, some pictures and material which might to advantage remain in view permanently, but the number is usually small. A frequent change in the appearance of the room will attract attention and may be used to teach a series of lessons.

A great deal of the advertising material supplied by Breeders' Associations, etc., serves a good purpose, but it is too often uncared for and sometimes is left on the walls indefinitely, giving the room an untidy appearance and indicating that the teaching is static rather than progressive.—L. E. C., North Carolina News Letter.

Allen D. Collette, who completed his work at the College of Agriculture in March, is teacher of agriculture at Dassel.