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WAR SERVICE ROLL

Minnesota teachers of agriculture who are engaged in war service. If you know of others, kindly inform us. This roll is to have a permanent place in the Visitor. Will you help us to keep it accurate and up-to-date?

J. Charles Bowe, 239 Airplane Squadron, Kelley Field No. 1, San Antonio, Texas.

P. W. Chase, Aviation School, San Diego, California.

G. N. Danfort, Third Officers' Training Camp, Yaphank, N. Y.

R. R. Johnson (awaiting call, Ransomville, N. Y.).

Charles Kelehan, First Lieutenant, Co. K, 136th Infantry, Camp Cody, Deming, N. M.

Archie Lang, 337th Field Artillery, Camp Dodge, Iowa.

R. J. Lewis, Lieutenant, Signal Reserve Corps, Aviation Section.

Fred F. Moore, Co. 2, Officers' Training Camp, Camp Funston, Kansas.

Ernest G. Roth, Officers' Training School, Camp Custer, Battle Creek, Michigan.

C. J. Skrivseth, Co. F, Second Battalion, 163rd Depot Brigade, Camp Dodge, Iowa.

Arthur J. Souba, Navy Instructor in Food Chemistry, Dunwoody Institute, Minneapolis, Minnesota.

Otto A. Stangel, 36th Co., C. A. C. N. A., Presidio, San Francisco, Cal.

Arthur V. Storm, U. S. A. Ambulance Service, Section 568, American Expeditionary Forces, Overseas.

H. B. Swanson, Co. C, 313 Engineers Corps, Camp Dodge, Iowa.

T. W. Thorson, Musician, U. S. N., Battleship New Jersey.

H. G. Zavoral, Veterinary Corps, Camp Funston, Fort Riley, Kansas.

A SONG FOR THE SCHOOL GARDEN ARMY

Johnnie, get your hoe, get your hoe, get your hoe,
Mary, dig your row, dig your row, dig your row,
Down to business, girls and boys,
Learn to know the gardener's joys;
Uncle Sam's in need, pull the weed,
plant the seed,
While the sunbeams lurk, do not shirk, get to work;
All the lads must spade the ground,
All the girls must hustle 'round.

Chorus
Over there, over there;
Send the word, send the word over there,
That the lads are hoeing, the lads are hoeing,
The girls are sowing ev'rywhere,
Each a garden to prepare,
Do your bit so that we all can share
With the boys, with the boys, the brave boys,
Who will not come back 'till it's over, over there.

—Exchange.

BOYS' AND GIRLS' CLUBS Interesting Discussions of Club Projects at Annual Short Course

About three hundred Minnesota boys and girls, all of whom were engaged during the last year in some sort of boys' and girls' club work, attended the boys' and girls' short course at University Farm, April 1-5. For this year, baby beef, calf and poultry contests will be added to the following, which were open for the young folks last year: corn, pig, potato, bread-baking, cow-testing, gardening and canning. During the short course week, subjects relative to these projects were discussed with the boys and girls so that they might know how to obtain best results in their project work. The afternoons were devoted to sight-seeing trips to points of interest about the Twin Cities, such as flour mills, stock yards, packing plants, museums, and the Capitol. The mornings were devoted to instruction and the evenings to educational moving pictures.

PRACTICE TEACHING HELPS

College Senior Says Experience Makes Undergraduate Better Student

The following article was written by a senior in the college of agriculture as an assignment for a class in journalism. The Visitor prints the story as an indication of the thoughtful consideration which a college student has given to the comparative merits of college courses and also of constructive suggestion. The subject is "Teaching Experience Makes Undergraduates Better Students."

"President Burton recently said, 'Many attend the University but few become educated.' He meant by that, that the greater number of college students do not accomplish what they are capable of doing. But very few of the students are making full use of their opportunities. They rarely consider their own status in an attempt to improve their own condition and to make full use of their own opportunities. When students take work in the education department and do practice teaching, they begin to realize their weaknesses, and as a result become better students.

"When the college senior is doing his practice teaching, he appears before his class with perhaps the first realization of the fact that he is not properly prepared to enter his life work. He realizes that from the standpoint of subject-matter he is woefully weak. He finds that he can not put his ideas across in the way that his pupils can grasp them. He begins to study means, devices and methods by which the pupils may visualize and connect up the subject-matter. He suddenly becomes aware of the fact that his work is uninteresting to the class and that he has not developed a confidence in himself, an individuality and personality that expresses itself above that of the average of his class. In his college work, he has taken a receptive attitude, that is, he has been soaking things up without much consideration of their practical or usable values. In teaching, he discovers that he must develop a dominance in his manner of thinking; he must have command of his material and know its meaning in the smaller details. If he does not, his pupils will soon discover his superficial understanding of the subject. If he is interested in his teaching, he will study his individual pupils to find out why they are not succeeding with their work. This study will have its foundation on his own experiences as a student and will result in an inventory of his own methods of study and habits of life. When he does this, he will find that he is asking his pupils to do things that he has not as yet trained himself to do.

"The reason that the teaching practice is so effective in making the teacher a better student is because of his great lack of experience. He is young and is looking ahead to success in his life work. He has studied a great variety of subjects, psychology, sociology, methods of teaching and other cultural subjects along with his agricultural studies. He is alert and eager to see how some of these principles and theories that he has learned are going to work out in life. When he begins the teaching work, he begins to see the great foundation that he has been developing and the object or goal toward which he is working. It is then that he wishes he might start his work over again and master it as he has just learned how to do.

"He learns how to study by teaching more than by any other work of his curriculum. He learns that he must always work with a purpose and with an end in view. Some of these outstanding purposes and methods are:

1. To select the important facts from the great mass of details.
 2. To so organize his material and to so correlate his facts that they may be easily recalled to mind.
 3. To be ever alert for the new facts, to be able to recognize them, to devise means of correlating and connecting them with his past information.
 4. To concentrate upon the problem that he has in hand until he has conquered it.
 5. To develop efficiency in all his work, not only in his study, but also in all his habits in life, and to be able to pick out the important things from the unimportant.
 6. To recognize that his success depends not only upon his mental work but also upon his moral, physical, social, and religious training.
 7. To develop a will power and initiative that will help him to succeed in whatever work he may undertake. He finds that if he is going to be a leader of others, he must have power behind him.
- "When we consider that the average college student does not realize

FEDERAL AID FOR SCHOOLS

Many Minnesota High Schools in Line Under Smith-Hughes Act

Each of the following Minnesota high schools is now operating a department of vocational agriculture which will probably meet the requirements necessary to receive federal aid under the Smith-Hughes Act for the fiscal year which ends July 31: Albert Lea, Alexandria, Correll, Fosston, Hector, Jackson, Pipestone, Sauk Centre, and Mantorville.

The state schools located at Morris, Crookston and St. Anthony Park are also anticipating a share of the federal aid. The following schools applied for federal aid but failed to receive it on account of losing their regular instructors in the county agent movement and not being able to replace them with men capable of doing vocational work in agriculture: Blue Earth, Chatfield, Cokato, Cannon Falls, Hinckley, Mahanomen, Pine River, Spring Valley, Renville and Rushford.

Minnesota has as good a foundation on which to build vocational agriculture as any state in the Union. Owing to the liberal state aid, there were in existence last fall one hundred and eighty-seven high school departments of agriculture that were teaching agriculture and doing extension work with graduates of the college of agriculture in charge. In order to have a real vocational agricultural department, it is necessary to have a superintendent who is appreciative of the problems of such a department. Minnesota is fortunate in having such men as superintendents in her high schools. Minnesota has a large number of high schools with well-equipped agricultural departments. The additional expense necessary to carry out the provisions of the Smith-Hughes act and receive federal aid would be very small in many of them. The change that must be made in most cases is one of method and organization. Where this is true, it will be possible for the schools to employ more experienced men and to keep their men for longer periods of service without increasing the cost to the local districts. Men attempting to carry on a department of vocational agriculture must be well prepared and be acquainted with the community. The vocational instructor of agriculture not only has the power to give advice but he also has the authority to get this advice put into practice. That is a delicate business if the instructor is not a master of his job.

Schools interested in taking up this new work for 1918-1919 should write E. M. Phillips, state director of vocational education in Minnesota, for information and after studying the requirements of the Minnesota plan, if still interested, should make application prior to August 1.

until he is in his senior year, the importance of his work, we do not wonder that the men turned out of the colleges are not educated. We wonder why some training has not been given them, some credit course required of them, whereby they might start right at the beginning of their college work. Such work is being developed more and more in different colleges. Lectures are given the freshmen telling them what they are to do and what is expected of them. Noted men are secured to speak, who are able to inspire ideals and encourage serious work. As yet that work has not been organized into a credit course. Perhaps no better course could be given college freshmen than a course in general education. Such a course could plan and develop for the pupil a system to be followed in his college work. It could help him to find himself and to give a foundation early in his college career that would make his subsequent work of more value to him. It could give the student the fundamental principles of psychology, a study of the physical make-up of the body with its relation to mental reception and it could take up the mental and moral status of the individual in its relation to college life. It could make the student realize the importance of a well-balanced life, that it is as important for him to develop his physical, social, and religious instincts as it is to develop his moral instincts. It might be a means of increasing the number of educated men who go through the university."

Books Received

Alfalfa. L. F. Graber. A handbook for the alfalfa grower and student. The Alfalfa Order, Madison, Wisconsin 1918. Price, 50 cents.
Hints to Operators, Will C. Smith. Nicholas Power Company, New York City, N. Y.

NEWS FROM THE FIELD

K. A. Norsen, agricultural instructor at Alexandria, has a large number of boys and girls raising garden products.

Superintendent F. M. Yockey of Alexandria has arranged to have the domestic science teacher begin work August 1 in order to open the domestic science room in the high school for the use of the public. Any boy, girl or adult may bring vegetables or fruit to the department and can it there.

R. B. Fall, agricultural instructor at Correll has made ear tests of seed corn for practically the entire community.

The class in agricultural engineering at Fosston, under the supervision of Instructor Atwood, laid a cement floor in the greenhouse this spring.

J. W. Butcher recently came from California to take charge of the agricultural department at Hector. This department has been of great service to the farmers of the community. One illustration of real service is that each farmer is allowed to store ten bushels of seed corn in the basement of the high school. Several hundred bushels of seed corn were tested for the farmers last spring.

Renville was unfortunate in losing its agricultural instructor this spring. However, Superintendent West directed the usual tests of seed corn.

Mr. Eide, agricultural instructor at Mantorville, is conducting project work in vocational agriculture.

Theodore Odlund, instructor in the West Central School of Agriculture at Morris, is carrying on summer project work in vocational agriculture with the pupils who attended the school last year.

H. J. Hookom, a senior in the College of Agriculture, University of Minnesota, has been appointed teacher of agriculture at Willmar.

R. E. McKenney, formerly teacher of agriculture at Windom, is now occupying a similar position at Excelsior.

George Sanders, who has been teaching agriculture at McIntosh, has thirty enrolled in garden work.

SEED CORN TESTED

High School Students Save Minnesota Farmers Thousands of Dollars

About one hundred and eighty high schools in Minnesota have agricultural departments. It is safe to say that enough seed corn was tested in these schools last spring to make an average of fifty bushels to a school or a total of 9,000 bushels of seed corn tested. Each bushel will plant at least six acres. This would be enough corn to plant 54,000 acres. It is conservative to say that at least one-third of the corn tested proved to be useless for seed. If this corn had not been tested by the high school men, and there is no other organized agency to perform this service, there would be 18,000 acres planted to corn which would not grow. At \$50 an acre this would represent a saving of \$900,000. If the high school men of the state did nothing else but test seed corn, their contribution to the welfare of the state would have entitled them to a salary of \$5,000 each. Several agricultural departments in Minnesota high schools are allowing the farmers to store ten bushels of seed corn in the basement of the school building. This service has been of great value the last year and it is very noticeable that in communities where such service was rendered there was more good seed corn than anywhere else.

Lantern Slides

The following incomplete list of available sources of lantern slides may be of interest to agriculture men in the field:

- May be purchased from:
Mrs. M. V. Singerland, Ithaca, New York
Conrad View Company, Chicago
Keystone View Company, Meadville, Pa.
Central Scientific Company, Chicago
Underwood and Underwood, New York
Victor Animatograph Company, Davenport, Iowa
The International Harvester Company, Chicago
The McIntosh Stereopticon Company, Chicago
The Badger Stereopticon and Picture Machine Co., Congress Park, Illinois
May be either rented or borrowed from:
U. S. Department of Agriculture
International Harvester Company, Chicago
The Portland Cement Company, Chicago
National Cash Register Company, Dayton, Ohio (School and Landscape Gardening)
Underwood and Underwood, New York
Keystone View Company, Meadville, Pa.

ANNUAL SHORT COURSE

Superintendents and Principals Hold Meeting at University of Minnesota

The fifth annual superintendents' and principals' short course was held on the main campus of the University of Minnesota March 27-30. These meetings are made possible through the co-operation of the state department of education, The College of Education, and the Minnesota Educational Association. Dean L. D. Coffman of the College of Education, presided at the opening meeting. The opening address was made by President M. L. Burton of the University of Minnesota. A series of lectures was designed to call attention to the fact that history should receive a new content and more attention be given to citizenship and social service. Professor Peter Sandiford of the Department of Education, University of Toronto, gave a series of lectures on the effects of war on the education of Canada.

Mr. R. J. Leonard, federal agent for industrial education, was unable to be present. His place was taken by Dean Coffman.

At the business meeting the following officers were elected:

President, M. A. Morse, Buhl.
Vice President, H. E. Wolfe, Fairmont.
Secretary, C. W. Knox, Cleveland.

MOUNTING PRESSED PLANTS

The glue method of mounting dried, pressed, specimens of plants may be new to some of our readers. Directions for its use are as follows:

Get a sheet of window glass a little larger than any specimen which you wish to mount. Thin some liquid carpenter's glue with water. It must not be too thin, else it will run. Now spread this thinly (about 1/16 inch deep) over the surface of the glass. Have your mounting sheet ready. Drop a plant into the glue. Now carefully pick up the plant and drop it into its permanent position on the herbarium sheet. Lay aside to dry. No glue should show. The glue may be made waterproof, in moist climates, by the addition of one part potassium dichromate to fifty parts of glue.

Bulletins on Birds

In many cases too little attention and thought is given by those engaged in agricultural lines to the study of birds, most of which are of great value as helpers to farmers and gardeners.

The study of our birds and their habits in their natural surroundings is a highly enjoyable and profitable form of recreation. The following books and bulletins will be found interesting and helpful in our studies:

How to attract birds in the east central states. U. S. Department of Agriculture, Farmers' Bull. 912.

Fifty common birds of farm and orchard. U. S. Department of Agriculture, Farmers' Bull. 513. (Fine colored pictures.)

Common birds useful to the farmer. U. S. Department of Agriculture, Farmers' Bull. 630.

Birds in their relation to agriculture in New York. Cornell Reading Course, Vol. IV, 76.

Land Birds East of the Rockies. Reed.

Booklets on Explosives

The following booklets are published by the Institute of Makers of Explosives, 103 Park Avenue, New York City. Each booklet contains about seventy-five pages of information on the use of high explosives on the farm. They may be obtained from the above address:

- Clearing Land of Stumps
Clearing Land of Rocks for Agriculture and Other Purposes
The Use of Explosives in the Tillage of Trees
The Use of Explosives in Making Ditches.

The States Relations Service of the U. S. Department of Agriculture has within the last few months revised the following mimeographed classified lists of publications of the U. S. Department of Agriculture. These lists are published for the use of teachers. The following are the titles:

- C.L.1. Agricultural Education
C.L.2. Agronomy
C.L.3. Horticulture
C.L.4. Animal Husbandry
C.L.5. Dairying
C.L.7. Farm Management and Rural Economics
C.L.8. Rural Engineering
C.L.9. Birds and Other Animals.

These is also a list of garden publications and another of Home Economics bulletins. Each teacher of agriculture will want a set of these lists.