

UNIVERSITY FARM PRESS NEWS

Published Semi-Monthly by the University of Minnesota, Department of Agriculture, Extension Division.

VOL. V

UNIVERSITY FARM, ST. PAUL, MINN., NOVEMBER 15, 1914

NO. 22

Entered as Second class matter January 15, 1910, at the postoffice at St. Paul, Minn., under the Act of July 16, 1891.

ORCHARD AND GARDEN NOTES

November 15-22

All roots and cabbage should be in winter storage now.

Leave the hyacinths in a cool dark place until well rooted.

It is safer to cover raspberries with dirt in Minnesota than to depend on snow.

A cabbage or mangel hung in the poultry house furnishes a much-needed green food.

Pompon chrysanthemums planted in the garden and lifted in the fall make nice house plants early in winter.

The Chinese cabbage is getting plenty of advertising just now. This is a good salad plant, but should not be heavily planted.

When chrysanthemums are through blooming the flower stalks may be cut off and the plants put in a cool place to grow slowly till toward spring, when cuttings may be made.

Full-sized green tomatoes wrapped in paper and stored in a cool dry place may be brought out to warmth and light to ripen, and will give an additional fresh vegetable until late in autumn.—LeRoy Cady, Associate Horticulturist, University Farm, St. Paul.

ORCHARD AND GARDEN NOTES

November 22-29

Cions of apples for grafting next spring may be cut now.

Pick and burn all dead fruit or mummies from plum trees.

Cover the strawberries with clean straw about four inches deep.

Tramp the snow around the young apple trees. It will help to keep the mice away.

After the first fall of snow is a good time to thin out the neighborhood rabbits.

Covering the strawberry bed with straw and mulching the lawn shrubbery is in order now.

A little sulphur dusted over plants that show signs of mildew will often stop the spread of the disease.

Paper white narcissi and daffodils potted early may be brought to heat and light and will soon flower.

Plan to attend the winter meeting of the Horticultural Society, December 1, 2, 3, and 4. It meets at University Farm this year. An excellent program has been prepared.—LeRoy Cady, Associate Horticulturist, University Farm, St. Paul.

WAR WILL CREATE DEMAND FOR HORSES

The war in Europe is sure to create a demand for horses—a larger demand than usual—for several years to come, thinks J. S. Montgomery, Assistant Animal Husbandman in charge of horses at University Farm, St. Paul. As a result Mr. Montgomery urges the breeding of horses.

He urges, also, the fall foaling of colts, rather than spring foaling—the customary method. "There are," he says, "many advantages in having colts foaled in the fall rather than in the spring. The mares are in better condition to work through the rush of seeding and harvesting. Colts foaled in the fall are not molested by mosquitoes and flies. The mare is better able to nourish the colt during the winter months, as she will have little hard work to do then. The farmer will have more time to look after the little animal. The colt will be ready to go on pasture as soon as the grass is green in the spring."

WORK FOR VICTIMS OF WHITE PLAGUE

"The proposal to provide work for arrested cases of tuberculosis, referred to in these columns, has already borne fruit in Minnesota," says Dr. H. W. Hill, of the Minnesota Public Health Association. "Once the general public really understands a legitimate demand for thoughtful aid in bearing the burdens of others the response is prompt and sure. Investigations by Dr. I. J. Murphy, editor of the Health Department Bulletin, of Duluth, shows that in that city every person with a case of arrested tuberculosis who is capable of work is now provided with suitable employment, chiefly through sympathetic adjustments made by employers.

POTATO ROTS COST STATE THOUSANDS

Various types of rot annually destroy thousands of dollars worth of potatoes in Minnesota. This loss could be greatly reduced if proper methods of cultivation and storage were used, says A. G. Tolass at University Farm.

The rots responsible for most of the damage in Minnesota are internal brown rot, powdery dry rot, soft rot, and rhizoctonia or stem rot.

The internal brown rot is always associated with potato wilt, and infected tubers can generally be found under wilted vines. This rot forms a dark brown discoloration which may take the form of a more or less complete ring at the stem end. The discoloration rarely extends deeper than three-fourths of an inch and spreads very slowly.

Dry rot is caused by a fungus closely allied to the internal brown rot organism and infects the tubers through wounds or following the internal brown rot. Potatoes attacked by the dry rot are rapidly reduced to a dry, punky, light brown, shriveled mass. If storage conditions are warm and moist, the tubers may be covered with a white mold-like growth.

Very often tubers are attacked in the field or in storage by a soft rot which quickly reduces the potatoes to a soft, slimy, foul-smelling mass.

The stem rot fungus, rhizoctonia, produces on the tubers, small dark brown bodies which resemble bits of soil. These bodies are the wintering-over stage of the fungus and may spread very rapidly from one tuber to another under improper methods of storage. While this fungus does not itself cause a rot of the tuber, it may pave the way for such rot-producing organisms as the dry and soft rots. Of these diseases, rhizoctonia and the organism causing the internal brown rot only produce a wilting of the vine. It is, therefore, important to treat all tubers showing the presence of the brown soil-like bodies with a solution of mercury bichloride and to discard for seed all tubers showing the brown ring discoloration.

Internal brown rot may live in the soil for six or more years. If potatoes are grown continually year after year on the same soil these organisms will increase in number, and, as a consequence, the percentage of wilted vines and rotted tubers will also increase until in a few years the soil will be entirely worthless for growing potatoes.

A dry well-ventilated storage cellar, where the temperature can be kept as close to 35 degrees as possible, will reduce the loss due to the various tuber rots to a minimum. The crop should be stored at a low temperature immediately after digging, before any heating can take place. Care should be taken in digging and handling tubers not to bruise them, since it is by means of wounds that the rots are spread most rapidly. Tubers affected with dry rot should not be placed with others in storage. If tubers are exposed to sunlight for several hours before being placed in storage, the soft rot organisms adhering to the surface of the tubers will be killed. It is important to keep the storage cellar cool and dry, since the rot-producing organisms require warmth and moisture in order to grow.

Since all of these diseases live over winter on or in the tubers, it is imperative that seed treatment and seed selection be practised in order to prevent a recurrence of the troubles the following year. This, together with the other precautions given, will prevent the spread of these diseases and reduce the loss in storage.

RED CROSS SEALS FOR TUBERCULOSIS WAR

"Why didn't the doctor tell me?" is one of the most pitiful questions which the tuberculosis physician has to meet," says Dr. H. W. Hill, of the Minnesota Public Health Association. "It comes so often, too, from men and women who have been ailing for three or four years, have taken treatment for various diseases but never seriously insisted on having an examination which would have shown that they had tuberculosis. Then, when the disease is far advanced they come to the man whose specialty it is to discover tuberculosis if it exists, and it is often too late to effect a cure. It is rare, indeed, that it is not too late to save the other members of the family from infection.

"This is one of the conditions which the Minnesota Public Health Association hopes to remedy through the funds received from Red Cross Christmas seals this year. If each one does his little share for the sake of the sufferers these cases which have not yet been discovered and which are now existing in open menace to the entire community, will be sought out and placed in sanatoria and their families examined and protected."

SCHOOL SENDS MEN BACK TO THE FARM

Four thousand and eighty-three students have attended the Minnesota School of Agriculture since the School opened in the fall of 1888. Of this number nearly half, or 1841 to be exact, have been graduated after three years of work. This, it should be understood, does not include students of the College of Agriculture. In addition to the farm school students mentioned, there have been 1615 who have taken the annual farmers' short course. A large majority of both the regular and short course students are now living on the farms of the State and putting into practice the methods and principles learned at the school.

Showing the distribution of sources from which regular and short course students have come, the following table has been compiled by J. M. Drew, Registrar of the School of Agriculture.

It is rather interesting to note that Hennepin County leads in the number of students both regular and short course; Goodhue County is second in the number of regular students, and Washington County third.

The regular and the short course students from the different counties are given in their order, the number of regular students being listed first after the county name, and then the number of short course students.

Aitkin 9, 3; Anoka 54, 8; Becker 22, 6; Beltrami 5, 5; Benton 3, 2; Big Stone 48, 31; Blue Earth 38, 28; Brown 91, 38; Carlton 10, 4; Carver 36, 35; Cass 11, 1; Chippewa 66, 28; Chisago 68, 21; Clay 15, 5; Clear Water 4, 0; Cook 3, 0; Cottonwood 23, 10; Crow Wing 11, 8; Dakota 89, 24; Dodge 25, 14; Douglas 49, 10; Faribault 35, 17; Fillmore 101, 26; Freeborn 56, 12; Goodhue 193, 48; Grant 50, 20; Hennepin, 246, 140; Houston 97, 14; Hubbard 5, 1; Isanti 18, 16; Itasca 9, 3; Jackson 20, 19; Kennebec 7, 2; Kandiyohi 88, 24; Kitson 14, 17; Koochiching 2, 0; Lac qui Parle 67, 21; Lake 1, 0; LeSueur 37, 8; Lincoln 15, 16; Lyon 55, 36; McLeod 63, 23; Mahanomen 1, 0; Marshall 17, 10; Martin 47, 17; Meeker 73, 24; Mille Lacs 10, 6; Morrison 11, 6; Mower 62, 20; Murray 5, 10; Nicollet 44, 14; Nobles 40, 11; Norman 43, 13; Olmsted 42, 10; Ottertail 117, 48; Pennington 3, 0; Pine 14, 7; Pipestone 23, 20; Polk 31, 13; Pope 37, 18; Ramsey 120, 77; Red Lake 5, 6; Redwood 79, 25; Renville 143, 46; Rice 128, 36; Rock 34, 8; Roseau 17, 4; St. Louis 25, 12; Scott 9, 15; Sherburne 35, 4; Sibley 38, 11; Stearns 70, 24; Steele 29, 9; Stevens 40, 2; Swift 79, 15; Todd 25, 6; Traverse 24, 5; Wabasha 97, 18; Wadena 6, 5; Waseca 43, 16; Washington 166, 37; Watonwan 41, 17; Wilkin 16, 12; Winona 39, 7; Wright 74, 25; Yellow Medicine 101, 25.

THE FARMERS' CLUB

The farmers' clubs of the State should remember Thanksgiving. The meeting in remembrance of the season should be one of jollification. The spirit of thankfulness should pervade it. Three things suggest themselves as desirable for discussion at such a meeting—the history of Thanksgiving as a special American institution, what the year has brought as ground for thankfulness, and what direction may be given to the effort of the ensuing year in order to make sure of greater ground for thankfulness another year.

The thing to do right now is to take the Thanksgiving idea right into the mind and mull it over. Soon something will take shape as a club meeting program.

With the look forward suggested comes an idea for a later club meeting,—community standards, community breeding. Community breeding of crops and live stock has made more than one community prosper. Consider Northfield, Minn. A few years ago every farmer in the vicinity was going it alone. The Northfield banks in those days counted their deposits by the hundred thousand. Then came the community breeding of Holstein cattle. Today Northfield's banks count their deposits in millions.

Take up the subject at the next meeting of your club and see what you can get together on. It may be potatoes, it may be dairy cattle, it may be corn. It is a good thing for a community to pull together as a unit.

The common annual four o'clock makes an interesting hedge along a garden walk. It blooms profusely and grows strong and even.

FOOT AND MOUTH DISEASE DEMANDS RADICAL METHODS

Foot and mouth disease has made its appearance in this country for the third time in twelve years, having been introduced into New England in 1902, in the middle eastern states in 1908, and just recently in the middle western states.

The disease affects cattle principally, but all cloven-footed animals are susceptible, so that swine, sheep, and goats are sometimes stricken with the disease. Human beings sometimes contract the infection by drinking milk from infected animals, or from handling animals having the disease.

Foot and mouth disease is remarkable for the swiftness with which it spreads, says H. Preston Hoskins, of University Farm, St. Paul. The disease is spread by contact, and any object that has been contaminated with the discharges from the sick animals may convey the infection to healthy animals. The germs of the disease may be carried on the shoes or clothing, by vehicles, on the hoofs of animals, by dogs, cats or birds.

The disease is not necessarily fatal, although a small percentage of affected animals may die. One attack of the disease does not confer permanent immunity. An animal may have the disease two or three times. Affected animals usually recover without any treatment.

The most prominent symptoms are a high fever, loss of appetite, and the formation of vesicles (blisters) in the mouth, on the tongue and lips, and sometimes on the udder. Similar eruptions take place between the toes, at the coronary band, and cause extreme lameness. Animals with marked foot lesions often lie down and refuse to get up, on account of the pain of standing. Affected animals frequently stand with the head down, and with streams of saliva flowing from the corners of the mouth. Marked disturbances of the digestive organs are often observed.

The United States is the only country in the world that has demonstrated its ability absolutely to eradicate the disease, and it is to be hoped that the methods which have been successful before will speedily check the present outbreak.

In general the plan is to slaughter all infected and exposed animals, bury them in deep trenches and cover the carcasses with quick lime. Infected premises are thoroughly disinfected and quarantined. No live stock can be brought to the premises for four months. Public highways in infected territory are closed to traffic. Persons are not allowed to visit or leave infected farms. Feed and bedding exposed to the infection are burned. Owners of slaughtered animals are reimbursed on the basis of utility value, appraisement being made by a practical stockman and an official of the Federal Bureau of Animal Industry. One half is paid by the federal government and one half by the state interested.

In the present outbreak the disease started in Michigan and Indiana, and has spread to Illinois, Wisconsin, Iowa, Ohio, New York, Pennsylvania, and Maryland. With the establishment of proper quarantine measures, there should be no great difficulty in keeping the disease out of Minnesota. At the same time, stock-owners of this State should be continually on their guard until the disease is entirely eradicated from the infected territory.

HORTICULTURISTS TO MEET AT "U." FARM

The Minnesota State Horticultural Society will hold its annual convention in the assembly room at University Farm, St. Paul, the first four days of December.

The four days' program includes special sessions devoted to vegetable gardening, fruit-growing, the culture of flowers, decoration of grounds, reforestation, growing of windbreaks, and many other subjects. At least four lantern slide lectures will be given. Well-known specialists from abroad have been secured, including Dean R. L. Watts, of the Pennsylvania College of Agriculture, whose specialty is vegetable gardening; Professor Wilhelm Miller, of the Illinois State University who takes up the general subjects of floriculture and landscape art; Professor N. E. Hansen, the well-known fruit-breeder; Professor C. B. Waldron, Horticulturist of the North Dakota Experiment Station; and Charles G. Patten, the noted fruit-breeder of northern Iowa. It is probable that the assistant pomologist of the United States Department of Agriculture will also have place on the program.

University Farm can be reached from either city by the Como-Harriet car line. This connects with the new University Farm line at Eustis street.

Thursday evening will be given over to the regular society banquet at University Farm.

(Editors: Here is something that should be brought to the attention of every farmer and every farmer's wife in the State. It is a chance for the farmer and his wife to have a good time, to absorb new ideas and to go back to the farm to enjoy life and work more fully than ever before. You can give them the chance at it simply by letting them know about it.)

SHORT COURSE TO DRAW MANY TO FARM SCHOOL

If plans do not go wrong, there will be more farmers at the Minnesota College of Agriculture from January 4 to January 9 than have ever been there before.

The reason for this will be a Farmer's and Home-Makers' Short Course, unlike anything of the kind offered in Minnesota up to the present day.

This course will, in fact, be six courses unified. The farmer or farmer's wife may take any one of the six or may take parts of several courses and get a lot of extras thrown in.

The courses are: Agricultural Engineering; Dairy and Animal Husbandry and Veterinary Science; Farm Crops, Soils, and Farm Management; Home Economics; Horticulture, Botany, and Entomology; and Poultry and Bees. The work will be by lecture and demonstration.

In other words, here is offered a chance for the farmer to make a study of farm structures; of dairying, stock-raising, and the cure of animal ills; of crop rotations, soil conditions, and farm organization on business principles; of the problems of the farm home, including the kitchen; of fruit-growing and the avoidance of insect pests; of bees and chickens—all in a short space of time and under the direction of most interesting speakers.

But even this is not all that the week offers. In connection with the regular work of the courses will be held numerous conferences on special subjects. Conventions of various sorts are to be held at the College of Agriculture in the course of the same week. These all will be made to dovetail with the class work of the short course schedule, so that nothing good need be missed.

Then, too, there will be evening meetings with distinguished speakers, possibly such men as D. F. Houston, Secretary of Agriculture, L. H. Bailey, famous as a country-life writer, and P. G. Holden, the Iowa corn specialist.

There will be no expense in the way of a registration fee. The only expenses will be railroad fare, and room and board while at the College. The dormitories will be open at a charge of 25 cents a night, and meals can be had at the dining hall at 25 cents each. The expense therefore, will be railroad fare plus about \$1 a day for accommodations.

No farmer can afford to miss this opportunity for a week's profitable study, and enjoyable profit at that.

NEW PROFESSORS AT FARM COLLEGE

Minnesota is easily in the lead in the number of graduates of agricultural colleges teaching in high schools. The demand for such teachers is so great that the Minnesota College of Agriculture is making special efforts to meet it. To do this, it has added two especially equipped men to the staff of its Division of Agricultural Education.

These men are W. H. Bender and W. F. Lusk, the former an associate professor and the latter an assistant. Mr. Bender is a graduate of the Iowa State Teachers College, Iowa State University, and Iowa State College of Agriculture. He has had extended experience in rural schools, in high schools, in city schools, and as the head of the teachers' training work in the Iowa State Teachers College. Mr. Lusk is a graduate of a Wisconsin normal school and of the University of Wisconsin, and last year he spent working for a Master's degree in the Minnesota College of Agriculture. He has had much experience as a teacher in rural and city schools. Both men also know farm life from long experience.

Miss Georgina Lommen, recently of the State Normal School at Winona, is another addition to the staff of the same division. She has taken charge of the Normal Training work, with a class of ten young women interested in becoming rural school teachers. One of the greatest educational needs of today is a large number of well trained rural school teachers, and Miss Lommen has had just the preparation for training such teachers.