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ORCHARD AND GARDEN

March 1 to 8

High temperature and humid atmosphere are the two frequent reasons for weak, diseased plants in hotbeds and greenhouses.

The unusually cold weather in January destroyed many cabbage and cauliflower plantings in the south. In some places less than 10 per cent of the usual number of cabbage plants were available to ship north.

Many farmers and growers are considering planting an acreage of navy beans this year because of the high prices paid for them this season. Beans have this advantage that they may be kept over a season if the price is not right for sale. They are comparatively easy to grow and will yield from eight to fifteen bushels to the acre.

Try saving seed of some of the vegetables and flowers in the garden this year. Seed may be harder to get next year than this. Set out well shaped roots of carrot, parsnip, onion, beet, cabbage or other plants early this spring and save the seed as it matures.—LeRoy Cady, associate horticulturist, University Farm, St. Paul, Minnesota.

ORCHARD AND GARDEN

March 8 to 15

Gladiolus bulbs may be started in the house now and set out when the weather is warm.

A planting of ever-bearing strawberries should be made this spring. They will fruit well this autumn if given good care. Progressive or Minnesota 1017 are good varieties.

"Commercial Plant Propagation," by A. C. Hottes, published by the Florists' Exchange, New York, is the latest book on the propagation of plants and is an exceedingly valuable treatise. It costs \$1.35.

Unsprayed trees in certain Iowa orchards produced in 1917 an average of 2.4 bushels of apples; sprayed trees, 5.4 bushels. Not only was the quantity doubled, but the quality went from 9 per cent clean in unsprayed, to 81.3 in the sprayed orchards.

Sweet peas may be planted as soon as the ground can be worked easily. It is often worth while to start a few in paper pots or boxes in the house and transplant later when weather conditions are settled.—LeRoy Cady, associate horticulturist, University Farm, St. Paul, Minn.

EDITOR'S CORNER

Summer Courses in Journalism

A course in writing for the press and a course in newspaper management will be offered by the division of publications and rural journalism of the department of agriculture of the University of Minnesota at the summer session of the department, beginning June 24 and closing August 26.

The courses are offered because of a demand on the part of students in the University and on the part of young men in the newspaper offices throughout the state.

Persons interested should address: Office of Publications, University Farm, St. Paul.

Editors' Short Course

The division of publications and rural journalism of the University of Minnesota is already making plans for the 1919 editors' short course. If present plans are carried out, the course will be given later in the year, so that editors may not be compelled to be away from their offices for a full week if they wish to attend both the short course and the annual meeting of the Minnesota Editorial Association; it will also be given later in the week, so that editors may get their papers for the week out of the way before leaving.

In developing plans further, the division will appreciate any suggestions which those who attended this year or last, or any others, may wish to make.

The Country Weekly

A manual for the rural journalist and for students of the country newspaper field, under the title "The Country Weekly," by Phil C. Bing, assistant professor of journalism, University of Minnesota, was published recently by D. Appleton & Co., New York. The purpose of the book is to discuss the problems of the country newspaper field and to acquaint the beginner with the chances of rural journalism, "which are worth while from every point of view." The book is both interesting and suggestive, whether for the experienced editor and publisher or for the young man just setting out on a newspaper career.

TO THE EDITOR'S OF MINNESOTA

The seed corn situation in Minnesota and the northwest is so grave that March has been designated as Seed Corn Month. During March an effort will be made to search out and test every ear of corn that gives promise of being worth planting as seed. To make the search a success; that is, to find enough good seed corn to supply Minnesota's need during the approaching planting season, the situation must be brought to the attention of farmers and others interested repeatedly during the month.

The prosperity of the state depends upon the success of this campaign.

It is not only a question of prosperity but of patriotism.

Will you help, therefore, throughout March, by hammering away on the need of finding seed corn and the need of testing it with the utmost care?

TO FIND SEED CORN AND TEST IT IS MINNESOTA'S BIG PROBLEM NOW.

BARBERRY IS ENEMY OF WHEAT GROWERS

The barberry is the crafty Hun enemy of the wheat-growers of the northwest, and the friends of wheat are forming an alliance for the barberry's complete eradication.

The barberry offers shelter and support for the black rust such as caused terrible loss to the northwestern wheat crop in 1916. The black rust from one wheat plant does not directly attack other wheat but finds lodgment with the barberry over winter and then is ready to attack the wheat again the following year. So long as the barberry exists, therefore, the northwestern wheat crop is in perpetual danger.

For these reasons North Dakota has already eliminated the barberry throughout its borders. Manitoba has taken steps to do the same thing. Minnesota and other wheat states of the northwest are calling upon their people voluntarily to remove the barberry wherever it is found. In Denmark and European countries the rust has been completely controlled by the elimination of the barberry though the rust does exist to some extent where there are no barberry plants.

The Japanese barberry is not an enemy of wheat—only the common barberry. If you are for the barberry you are against the northwest as a wheat-producing region.

OUTLINES FOR GARDEN STUDIES ARE PLANNED

A series of outlines to aid in teaching gardening in the upper grades and high schools are planned as a means of promoting home gardens for the coming season. R. S. Mackintosh, horticultural specialist of the agricultural extension division of the University of Minnesota, makes the foregoing announcement, and asks that those wishing such outlines should advise him of the fact, addressing him at University Farm, St. Paul.

In urging the planning of home gardens Mr. Mackintosh calls attention to the fact that whereas the consumption of fruits and vegetables has been found to be about 15 per cent of the total food used, students in dietetics say that 30 per cent can be used to advantage. He suggests as a slogan, therefore: "Eat twice as many vegetables."

AID IS OFFERED IN TESTING SEED CORN

The Minnesota Seed Laboratory, University Farm, St. Paul, is prepared to assist farmers in making tests of seed corn, in order to help them secure the largest possible stand of corn during the coming season.

The laboratory can not make individual-ear tests but if farmers will select kernels from representative ears or from each ear in a lot these can be sent to the laboratory and tested, and in this way a rather definite idea of the germinating power of the lot can be determined.

Samples to be tested by the laboratory should be addressed to Minnesota Seed Laboratory, University Farm, St. Paul.

VISIBLE SEED CORN SUPPLY VERY SHORT

Right now, not more than 40 per cent of the seed corn which will be needed in Minnesota this spring is in sight. What is to be done about the rest?

The other 60 per cent is in the cribs of Minnesota's farmers. At least this is the belief of C. P. Bull of University Farm, secretary of the Minnesota Crop Improvement Association. The problem is to get it out of the cribs.

This means that during March every farmer who has cribbed or stored corn is called upon to examine his stores of corn in a search for suitable ears, and, having found a supply of suitable ears, to test them to see whether they have a high enough germination to be worth planting this spring.

To search for seed corn in March this year means not only prosperity but patriotism.

GREAT BOYS AND GIRLS' MEETING

When more than one thousand boys and girls from all parts of Minnesota gathered for Boys' and Girls' Week at University Farm, St. Paul, the first week in April last year, there was consternation among the committeemen at the farm school. Taking care of one thousand lively youngsters in the class room and on sight-seeing tours is no easy task.

The committeemen did not decide to abandon Boys' and Girls' Week, however. Instead they made some rules limiting attendance to boys or girls who had won prizes in local or state projects in 1917; to boys or girls who had won a trip to Boys' and Girls' Week as a prize for some industrial exhibit at a county fair, poultry show, or as a reward for some special agricultural or community achievement; to boys or girls who are definitely enrolled for some boys' and girls' club project in 1918, whose enrollment card for the project has been filed with T. A. Erickson at University Farm, and to boys and girls who have not attended two previous short courses unless they can qualify under Rule 1 or 2. These rules are expected to keep Minnesota's lively youngsters from overrunning the campus from April 1 to 5 of this year, when the next Boys' and Girls' Week will be held, but it will not be likely to prevent a large registration for the week, as there are several thousand boys and girls in the clubs of the state, and they are just the boys and girls who like most to come.

The courses of study will include the club projects for the year, and the sight-seeing will be at places of special interest in and near the twin cities.

TEST SEED CORN BEFORE YOU BUY

It is dangerous to buy corn for seed until you have tested it for germination, say specialists at University Farm, St. Paul.

The danger is greater than usual this year because seed corn tested at the Minnesota Seed Laboratory shows that the average of germination is much below normal.

The thing to do is to take samples of the corn offered for sale, make tests at once and reject any that does not show a fair degree of germinability.

SITUATION DEMANDS RAG DOLL CORN TEST

With only 40 per cent of the seed corn supply in Minnesota this spring in sight and a search for the additional 60 per cent being made, the simple rag doll method of testing seed corn will be in great demand, for every ear of seed corn to be used this spring should be tested before the kernels are put into the ground.

The rag doll method is described in Bulletin No. 24 of the Minnesota Farmers' Library series, University Farm, St. Paul, and is as follows:

The cloth used is a good quality of sheeting, cut to any convenient width and then marked off into numbered squares. The cloth is moistened and laid out on a flat surface. Six kernels of ear No. 1 are placed in square No. 1 and so on until the squares have been filled. The cloth is then rolled, and two or three rubber bands or a string put around the roll. As many rolls may be used as necessary to contain the corn to be tested. After the rolls have been filled, they are soaked in water for two or three hours and then placed under a box or wash tub in a room where the temperature does not fall much below 60 degrees. The wet rolls are laid across two strips of wood and one edge of the box or tub is raised somewhat to give the corn sufficient air. At the end of six days the doll is carefully unrolled and the sprouts counted. The percentage sprouting indicates the germinating power of the corn, ear by ear.

Governor Calls on Farmers To Select and Test Seed Corn

I wish to urge upon the farmers of the state of Minnesota to take all possible steps during the month of March to increase the supply of seed corn. The early frost of last year seriously injured the corn crop of this and adjoining states and destroyed the germinability of much of the corn which would normally have been saved for seed for the coming year's crop. Authorities at the state school of agriculture state that a careful survey shows there is not now available sufficient selected, acclimated and germinable seed to plant more than 40 per cent of the usual acreage of corn in this state.

Any decrease in the normal acreage of corn in Minnesota this year would reduce our cereal food supply and curtail meat production at a time when the greatest possible production is essential for the welfare of our nation and the success of the allies in this war.

Permit me, therefore, to urge every loyal citizen who has any ear corn in the crib, shock, or field, to sort over his corn in March, select ears which appear to be sound, place them where they may dry, and make germination tests according to the methods taught by agricultural instructors in high schools and the state farm schools, by county agricultural agents, by farm papers and by state and federal bulletins. Home-grown and tested seed should be used for planting for ear production in order that seed imported from other states, which may not mature in this latitude, may be used for growing corn intended for fodder or ensilage. If all loyal farmers will make a united effort, a decrease in this important crop will be averted.

J. A. A. BURNQUIST,
State Capitol, February 23. Governor of the State of Minnesota

BARNYARD MANURE ADDS TO CORN CROP

An application of eight or ten tons of farm manure to the acre on land that is to grow corn will result in a very much better corn crop, especially if the manure is taken directly from the barn to the field, and spread as it is hauled. Corn, being a gross feeder, readily takes up the available elements and leaves the land in better shape for a grain crop the next year.

When corn land is not available manure may be applied to other land. Top-dressing meadow lands with the manure spreader or even top-dressing pastures with light applications proves very profitable.

The late winter and early spring days are often not very profitably employed on many farms. Where the condition of the fields and the roads will permit, time could very profitably be employed in getting manure from the yards and barns directly to the fields. This saves time during the cropping season and gives the crops the benefit of the application, resulting in larger yields.

Barnyard manure has proved the most valuable fertilizer for farm crops in most parts of the northwest. Yet it is estimated that not more than 50 per cent of the fertilizing value of manure ever reaches the fields. The loss is caused by poor methods of handling. Very often the manure is left under the eaves of the barn to heat and leach. Frequently it is thrown out into the yard to be tramped over by the livestock, remaining there for the greater part of the summer to be washed out and decomposed.—Andrew Boss, Minnesota Experiment Station.

SEED CORN TO BE TESTED EAR BY EAR

In order to meet the grave shortage of seed corn, the possible supply in Minnesota is to be tested ear by ear. March has been set aside as Seed Corn Month and during that month a campaign will be waged to secure the careful selecting of any corn that may possibly be used for seed, and a thorough testing of all such corn by the individual-ear test.

One method of making the individual-ear test as described in Minnesota Farmers' Library Bulletin 24, University Farm, St. Paul, calls for the following:

A rack on which the ears may be placed and numbered.

A box divided into squares, with numbers corresponding to the numbers on the rack.

The box may be 24 inches square and 4 inches deep. The box is first filled with moistened sand or sawdust to within an inch and a half of the top. A moistened cloth, preferably of Canton flannel, is placed over this. This cloth is marked off with a pencil into 2-inch squares. Ten kernels are taken from the ear, omitting butt and tip kernels, and placed on square No. 1, ten kernels on square No. 2, etc. A moist cloth is then laid over the box and the box placed in a room where the temperature is from 60 to 70 degrees. At the end of the sixth day the top cloth is removed and the germination of each ear is plainly apparent from the number of kernels sprouting. The top cloth must be kept moist all the time but not too wet.

BOOK GIVES HINTS FOR CORN GROWERS

Valuable suggestions for corn growers and other crop-producers are to be found in Minnesota Farmers' Institute Annual No. 30, the subject of which is "Food Production."

The book is edited by A. D. Wilson, director of Minnesota's farmers' institutes and of the agricultural extension division, University of Minnesota, and by J. M. Drew of the school of agriculture of the University of Minnesota. The 1917 issue, recently from the press, was designed to aid individuals in solving special food problems growing out of the war. It discusses scores of problems of interest both to the home gardener and the farmer.

Copies may be had by addressing Minnesota Farmers' Institutes, University Farm, St. Paul, and enclosing stamps to cover postage on one-pound parcel according to zone.

CORN TESTS SHOW LOW GERMINATION

In November, December, and January the Minnesota Seed Laboratory at University Farm, St. Paul, tested for germination large numbers of seed corn samples sent in by farmers and seedsmen. The results, says Robert C. Dahlberg, who is in charge of the laboratory, represent quite accurately the condition of the corn being considered for seeding purposes. A few of the samples represent seed of the previous year. They are included to show the quality of all corn which can be drawn on for seed.

The average germination of 702 samples tested was only 63 per cent. Approximately 260 samples, or 37 per cent of the total, germinated below 50 per cent. Of the remaining 442 samples, those germinating 50 per cent or better, the average germination was found to be approximately 86 per cent. It may safely be said then, that 37 per cent of the corn which is considered for seeding purposes has an average germination of less than 50 per cent. If better corn can not be secured, such corn can, of course, be used for fodder purposes, seeding an extra large amount to the acre.

The foregoing figures serve to emphasize the rather poor condition of the seed corn crop, and the fact that special efforts should be made to save every bushel which shows a good germination.

The seed laboratory urges all farmers who are not able to ear-test their corn to send in samples of two or three hundred kernels for testing. This service is performed free of charge. Samples should be sent directly to the Seed Laboratory, University Farm, St. Paul, Minn.

Hotbeds should be in working order now. Look well to the watering and ventilating.

Enough French prune trees are being prepared for shipment in California to replace the trees on 35,000 acres which have been denuded in France.

Wood ashes makes a good fertilizer for strawberries and the legume crops, such as peas and beans. They contain from 4 to 6 per cent potash, about 2 per cent phosphoric acid, and from 20 to 30 per cent lime.