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EDITOR'S COLUMN

\$50 IN PRIZES FOR

MINNESOTA EDITORS

Are you keeping in mind the prizes to be given in the two contests for editors at the Editors' Short Course, University Farm, St. Paul, May 5, 6, and 7? The two contests are for the best newspaper make-up—front page and all of the other pages—and for the best Farm News Department. The first prize in each contest will be \$15 cash, and the second prize, \$10. The money for the prizes is the gift of the publicity department of the Minnesota State Fair.

At a similar contest in New York state not long ago 214 papers were entered.

Let's show what Minnesota can do!

Two exceptionally interesting features have been arranged for at the Short Course, in addition to those already announced. One of these will be an address by E. E. Sheldon of the Lakeside Press, Chicago, on the business of training apprentices, a subject which is becoming of increasing importance to the printing profession. The other feature will be an address by C. A. Baumgart of the staff of Successful Farming, Des Moines, Iowa, on the subject of community business surveys as a means of getting more advertising.

You can't afford to miss these two features alone. They will be worth all the time and expense involved in attending the short course.

But remember those contests!!!

LOSSES BY SMUT

CAN BE PREVENTED

Smuts of grain crops caused an estimated loss in Minnesota in 1919 of approximately four million dollars. In some years the losses are much greater. The formaldehyde method of seed treatment, says R. C. Rose, plant extensionist at University Farm, will prevent a large part of this loss. All seed grain, he adds, should be treated with formaldehyde since it is not always possible to tell whether it is smutted. One of the worst of these smuts is bunt or stinking smut of wheat. The smuts of oats and covered smut of barley are also destructive.

Formaldehyde may be used in several ways. The commonest method of treatment is to mix one pint of formaldehyde with 40 gallons of water, stir thoroughly and then sprinkle the seed grain. An ordinary sprinkling can may be used. While one man sprinkles slowly over the grain another shovels the grain over so it will be moistened thoroughly. If it is more convenient, the grain can be placed in sacks and dipped in the solution.

A quick method is sometimes used for oats. One pint of formaldehyde is mixed with one pint of water and is sprayed with a compressed air sprayer on 50 bushels of oats. If less oats is treated a smaller amount of the solution should be used. After the grain is thoroughly sprayed it should be covered for four hours and then sown.

The formaldehyde treatment does not eliminate loose smut of wheat and loose smut of barley. For details of this treatment write to the Plant Disease Department, University Farm, St. Paul, Minn., or send for Special Bulletin No. 16 on "The Prevention of Smut."

OPEN SEASON FOR

CHINCH BUGS HERE

A Kittson county farmer who says he knows chinch bugs when he sees them, because he once farmed in Iowa where they had them a-plenty, reports to State Entomologist A. G. Ruggles through his county agent that he found lots of these bugs while plowing last fall.

While there has been no authentic report, says the entomologist, of the presence of chinch bugs in this state for the last ten years, he advises farmers to be on the lookout for the pests and to take no chances.

Chinch bugs winter in bunches of grass, leaves and field litter of most any sort. Plowing in the fall helps to keep them down. Hedges, fences and the edges of woodlands should be cleared of trash and rubbish in the spring, and, when possible, the torch should be applied. Bugs killed now may prevent the production of armies of them when the warm days come.

ORCHARD AND GARDEN

April 1 to 8

Bridge graft any trees in the orchard girdled on the trunk by mice or rabbits.

One of the market gardeners near Minneapolis planted twelve pounds of spinach in his garden March 2.

Radish, lettuce, smooth peas, sweet peas, onions, and spinach may be planted as soon as the ground can be worked.

Finish any pruning in the orchard or on the home grounds and burn all trimmings.

Don't be in a hurry to uncover strawberries or perennials. They of course must not be allowed to turn white under the cover.

Repair and reseed the old lawn as soon as the ground can be worked. Pure Kentucky blue grass is the best lawn grass.

Plant Iris, Larkspur, Hollyhocks, etc., in the spring. Don't plant peonies unless they are moved very early, if you want flowers from them. Better set in the autumn.—Le Roy Cady, associate horticulturist, University Farm, St. Paul.

ORCHARD AND GARDEN

April 8 to 15

Early plowing saves soil moisture. Harrow or disk as soon as the texture of the soil will permit.

Plant out seeds that have been stratified over winter and set out hard wood cuttings as soon as the ground can be nicely worked.

The improved varieties of petunias and zinnias are excellent garden flowers for borders or to grow for cut flowers.

Grafting of apple or plum trees may be done now. Shrubs and trees should be set out as soon as possible and the land prepared for garden crops.

Prune out the old wood of currants and enough new wood so that the plants will not be crowded. Currants bear fruit on wood two or three years old.

Good strawberry and raspberry patches make a fine addition to a home ground. Put them in now. If Progressive or Duluth Everbearing strawberries are used you can pick fruit this fall.

Plant more flowers than you can use. They are fine gifts on a birthday or in case of sickness. There are many times when you can "Say it with Flowers" to advantage.—Le Roy Cady, associate horticulturist, University Farm, St. Paul.

UNIVERSITY FARM

WAFFLE RECIPE

The class in experimental cookery at University Farm has worked out some proportions which are recommended to homemakers by Alice M. Child of the home economics division of the university. Members of the class have been making some delicious waffles by the use of the following ingredients.

For each cup of sweet milk use one and one-eighth cups of flour, two tablespoons of fat, one egg, three teaspoons of baking powder, one-half teaspoon salt. Mix the dry ingredients, add milk, beaten egg and melted fat. The egg may be separated and beaten whites folded in, but this is not necessary. Heat the greased waffle iron well on both sides. Pour the batter on the iron nearest the flame, lower cover, then turn iron and bake until a golden brown.

POTATO SEED PLOT

BOOSTS PRODUCTION

In the opinion of R. C. Rose of the agricultural extension division at University Farm, nothing can take the place of seed plot methods in increasing potato yields in Minnesota.

"Not only the growers of table stock," he says, "but also growers of certified seed should have a special seed plot, consisting of about one-twelfth of the entire acreage, to provide enough seed for the following year. If possible, the seed plot should be on land that has not grown potatoes for at least five years. As precaution against such diseases as scab and black scurf, the seed ought to be soaked in a solution of corrosive sublimate (4 ounces to 30 gallons of water) for an hour and one-half.

"All varietal mixtures and diseased and mixed plants should be removed from the plot. For this purpose the first inspection should be made at blossoming time and the second just before the plants die."

EAR TEST BEST FOR SEED CORN

Samples of seeds for analysis as to quality are being received at the rate of about 2,000 a month at the seed laboratory at University Farm. A. H. Larson, seed analyst, reports that corn received at the laboratory this year is uniformly good, most of it testing 94 per cent or better. However, some samples have been received which test as low as 65 per cent, and a few even lower.

Mr. Larson believes a farmer can do no more profitable work at this time than to give his seed corn a thorough individual ear test. The ears should be arranged in an orderly way so that each can be kept track of during the germination test and either saved or discarded, depending upon its behavior in the germinator. Mr. Larson recommends the common sawdust box for making individual tests of corn on the farm. The box should be 30 inches square and four inches deep. Sawdust is packed to the depth of two inches in the bottom. Over this is laid a piece of white cloth ruled into 100 two-inch squares which are numbered from 1 to 100. On these squares are placed five or six kernels from ears or corresponding numbers taken from butt, middle and tip. Over the whole is carefully laid two pieces of cloth. This is now covered with an inch layer of sawdust and then soaked with water. A temperature of 70 to 80 degrees should be maintained about the box. A basement with a furnace makes an ideal place. Light is not necessary.

After five days the top layer is removed by catching hold of the corners of the upper cloth and lifting off, the next cloth being carefully rolled back. The samples that germinate poorly can then be easily seen and the ears from which they came discarded. This leaves only the high germinating ears. In this way, corn which in bulk would make poor seed can be graded into good seed.

GRUB TO HAVE HIS INNING THIS YEAR

Every three years the white grub comes into his own and the cycle is now about to be completed.

In the adult stage the white grub is the big black June beetle which flies by night and lays its eggs by day in spring grains and grasses and weed covered areas. Grubs hatching from the eggs feed to some extent the first year on the roots of corn and other plants, but cause no serious injury. Late in the fall they seek sanctuary deep in the ground. The following spring—and this is the spring now here—they come up and take heavy toll of plant life by feeding on the roots. Late this fall they will go below the plow line and next year will come up again to do damage. In the fall of 1922 they again go deep in the soil, coming up in the spring of 1923 to turn into the blundering beetles.

Enough damage will be done by the grubs this year, say entomologists at University Farm, to warrant precaution in the planting of crops. Land that was devoted to any well cultivated crop in 1920 or clover seeded in 1919, will not be bothered with these grubs in 1921 says A. G. Ruggles, state entomologist. Land which produced small grain or timothy last year is likely to be infested. Farmers, particularly those in southern Minnesota, will be wise not to plant corn and potatoes this year on recently turned sod.

Rotation, early plowing in the fall and the right use of sod and pasture lands are the only known effective control measures available.

KILL GO-BETWEENS,

SAVE GRAIN, PINE

The destructiveness of black stem rust to grain crops can be reduced to a minimum, even eliminated, if the go-between plant, the common barberry, is destroyed. So, too, blister rust, which kills the white pine, can be controlled by uprooting all currant and gooseberry bushes, wild and tame, in the area of pine stands. The very simplicity of these strange relationships and the remedies at hand have raised up objectors and disbelievers, but experience and observation of years in this country and the old world countries have demonstrated the truth, and the truth is not to be mocked. Scientists and investigators of University Farm will lead another campaign against the "go-between" plants this year. Every land owner in Minnesota should join them. A pull altogether would accomplish wonders. "Let's go."

Story of Minnesota Wheat

NOTE TO EDITORS

What Minnesota is doing through its University Experiment Stations to maintain its standing as the great "bread state" of the nation is a fascinating story. That story is being told in a series of articles of about 400 words each in the Press News. Two will be published in each issue, so that the editors of Minnesota who wish to do so may have one story in each issue of their papers until the series is completed. The second installments appear below in this number.

WHEAT VARIETIES FOR MINNESOTA

The department of agriculture of the University of Minnesota recommends for use only varieties of wheat that, under systematic tests at the central experiment station and the various substations, have proven their superior yielding and milling qualities.

Spring wheat: The Marquis variety of wheat is recommended as the best common spring wheat available in quantity for seed in 1921. This variety has proved satisfactory over a period of years, except for 1919 and 1920 when it was badly injured by black stem rust. It is an early maturing wheat, however, and in normal years will give satisfactory yields of excellent quality.

Ruby, which was introduced in 1920 from Canada, is approximately a week earlier than Marquis, but it yields less than Marquis and is not recommended except in those localities where it has been found to do exceptionally well. Kitchener and Red Bobs wheat, also introduced in 1920, are on the doubtful list. Kota, a variety of common wheat originated at the North Dakota experiment station, has the advantage of being resistant to forms of black stem rust, but does not seem to be well adapted to Minnesota conditions. All of these other varieties are still under trial. Chief attention should be given to the Marquis variety.

Durum wheat: The idea prevails that all durum wheat varieties are resistant to black stem rust. This is not the case. Many of the durums rust as badly as the common wheats. The best variety of durum wheat for Minnesota is Mindum, Minnesota No. 470. Other durum wheats, which are on trial, have not done so well as Mindum. Among these are Acme, an amber durum from South Dakota; Monad, from North Dakota, and still others.

Winter wheat: Winter wheat usually yields better than spring wheat under the same conditions. Hardy winter wheats merit careful consideration. The best variety for Minnesota is Minturki, Minnesota No. 1507. This wheat is the result of a cross between Odessa and Turkey Red winter wheat made in 1902 at the Minnesota Experiment station. It is a bearded, smooth chaffed variety with kernels of the Turkey Red type.

Other varieties which may be used where Minturki cannot be obtained are Minhardi, Minnesota No. 1505, another cross bred winter wheat developed at the Minnesota Experiment station, and Crimean, Accession No. 845, which has given very good results. Red Rock, originated at the Michigan Experiment station, is not as winter hardy under Minnesota conditions as the others and the grain shatters very easily. The quality of the grain is high.

BETTER THE CREAM

BETTER THE BUTTER

The difference in price between high and low butter makes it imperative for cooperative creameries of Minnesota to produce a high scoring butter in order to make a success of their enterprise.

Good butter can never be made from poor cream. No matter how skillful the buttermaker may be, he can never expect to place high scoring butter on the market if he must churn cream which has been practically spoiled through careless handling.

It is not a difficult problem to keep cream clean and sweet. Cows should be clean and healthy and stabled in a well ventilated, well cared-for barn. The milk should be drawn into clean, scalded, dry pails. The small-top pails are best. The strainer cloths should be thoroughly boiled and dried. Then it is important that the separator parts be clean, scalded and dried each day.

When cream handled with these precautions is placed in a clean, scalded, dry can and immediately cooled to 50 degrees F. or lower and kept that cold until delivered to the creamery, it will give the buttermaker a raw material from which he can easily make the grade of butter that has brought Minnesota its enviable reputation.—Harold Macy, dairy division, University of Minnesota.

Stocks of these varieties may be obtained through the Crop Improvement association, University Farm, St. Paul.—A. C. Army, in charge of farm crops, University Farm.

INCREASING AND DISTRIBUTING GRAIN

In order to get the tested and recommended varieties of wheat distributed to the farmers of the state as quickly as possible, the central and substations each year grow increase plots of these varieties. This also provides a source where pure seed of the best varieties can always be obtained in limited quantities.

The 1921 crop schedule for these increase fields of wheat are: University Farm, Minturki, 25 acres; Mindum, 15 acres; Marquis, 10 acres. Waseca: Minturki 10 acres. Morris: Marquis 15 acres. Crookston: Mindum, 15 acres. Grand Rapids: Minturki, 2 acres.

The crop is carefully harvested, threshed and cleaned, particular attention being paid to the elimination of mixtures. This improved seed is then sold to farmers who will further grow and increase it. Any farmer who can give good assurances that he will grow the crop on clean land and keep it free from mixture with other varieties may obtain a small lot ranging from 3 to 10 bushels as long as the supply lasts.

The experiment station cooperates with the Minnesota Crop Improvement association in keeping a record of recommended varieties after they have been distributed to the farmers. A farmer obtaining seed which is being increased from any of the stations may apply through the association for a field and bin inspection of his field and threshed grain respectively. If the field is in such condition that the inspector thinks the crop will produce good, unmixed seed, and if the variety is relatively free from noxious weeds and diseases, the inspector reports favorably. Another inspection is made of the seed after it is cleaned and ready for use or sale by the farmer. If it then comes up to the standard qualifications for good, pure seed as set by this association, a certificate of inspection is issued to the grower and a record is made of the seed.

A crop produced from seed which was obtained from the station increase fields is recorded as second generation seed. Seed can be registered for two generations after being obtained from a station. It may be registered after that only if the grower maintains a special seed plot from which he makes a head selection, or if he obtains new stock from the experiment station. Seed from a farmer's seed plot can be registered for three generations providing that it passes the inspection.

Last fall about 400 bushels of Minturki and Minhardi winter wheats were distributed to farmers of the state. This spring the central station had 75 bushels of Mindum and 175 bushels of Marquis for distribution. The Mindum has all been distributed while—some of the Marquis is still on hand.—T. E. Odland, assistant agronomist, University Farm.

BRUSH MORE LAND,

ADVISES THOMPSON

"The man who plans to stump land in 1924 or 1925, should begin in 1921 to get the brush off. This done, he should sow six pounds of clover and timothy seed mixed, to the acre." This is the advice of M. J. Thompson, superintendent of the Northeast Experiment station at Duluth, who says conditions for brushing and seeding are the best since 1915.

"Labor and grass seed are the most important factors in this work," says Mr. Thompson. "Three pounds of clover seed can be bought for the price of one a year ago, while labor is decidedly cheaper, more plentiful and more efficient. The grass and clover sown now will not only produce excellent pasture in 1922, but when the land is stumped and the first crop planted, the sod formed will begin to pay dividends.

"At Duluth, in 1920, the presence of a grass and clover sod between the stumps made a difference of 20 bushels of oats and 50 bushels of potatoes per acre in the first crop on virgin land over and above the yield where a grass sod had never been formed. Furthermore, it is usually assumed that land in this condition is worth \$25 an acre more than it was in its wild state, and it is certainly much more salable.

"Converting a field of brush into a tame grass pasture that can be used for fall feeding the present year is something worth while."