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## EDITOR'S COLUMN

## EDITORS ASKING

## KNOTTY QUESTIONS

The editors of Minnesota surely have a lot of problems on their minds—that is, if one may judge from the questions they have sent in for discussion at the round-table feature of the Editors' Short Course program, which is scheduled for Thursday afternoon, May 5, at University Farm, St. Paul, and will continue through Friday, and until Saturday noon. Here are just a few of the questions such as the mails are bringing in:

How can one build up a perennially growing subscription list? How to convert country merchants to a belief in the benefits of advertising? On what basis can one establish correct rates for advertising? How can one bring a dead merchant to life when he refuses to advertise.

How can an editor get time to make his paper more readable when he has so many other things to do? How can one get and keep country correspondents and get good work out of them?

These are old-time hard nuts to crack, but they are being cracked, and you will be able to find out how if you come to the short course.

Remember, too, the dinner Thursday evening when the editors will be the guests of the Minneapolis Journal here at University Farm; the Symphony concert, the next evening, which will be followed by an address on the country weekly as a necessary institution in community life by Prof. Bristow Adams of New York State college, who has perhaps studied the problem he will discuss as closely as any other man in America.

Remember, again—, but we have not room to tell more this time. The story will be "continued in our next."

## GREAT VACATION FOR EDITORS AT DULUTH

Duluth is making elaborate plans for the entertainment of the Northern Minnesota Editorial association at its summer meeting in Duluth, July 21-24, a meeting to which the Northern Minnesota association invites and will cordially welcome the editors of the entire state.

A. G. Rutledge, secretary of the northern association, who is a past-master at getting up a program for such a meeting, is cooperating with representatives of the Duluth Commercial club and Duluth wholesalers, in arranging the features of the meeting. Just what these features will be Mr. Rutledge and Duluth will announce later, but there are many interesting things in and around Duluth and the visiting editors, and those they bring with them, will be shown as many of these interesting features as can be shown in four days, and these will include some of the great iron mines of the Mesaba range.

Mr. Rutledge, in making his plans, is associated with W. I. Prince of the Duluth Commercial club, Seney George A. Peterson, Frank Greyelle, representing the Duluth wholesalers, and George M. Jensen of the West End Advertiser, an active member of the association.

## TIME NEARS FOR BRINGING OUT BEES

It will soon be time, says G. C. Matthews of the division of bee culture at University Farm, to set bees out of the cellar again. If they have plenty of honey and are quiet, nothing is to be gained by setting them out early. But if they are noisy and spotting the hives they may as well be set out on a warm day, though there is always some danger, of course, of losses by bad weather.

When the bees are set out they frequently drift from some hives into others. Drifting is the greatest when the bees are set out in the morning. They are excited by handling just before flight. Therefore, they should all be set out the night before a quiet bright day is expected.

Drifting is also bad when hives are set close together in a straight row. All hives look alike and the confused bees drift against the breeze and enter the hives in front of which most bees are flying. The odor attracts them. Therefore the hives should be placed in pairs with entrances alternating south and east, thus:

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The pairs need to be about eight or ten feet apart. The farther they are apart the less drifting there will be.

## ORCHARD AND GARDEN

March 15 to 22

Cucumbers or asters may be very nicely grown in the greenhouse in early summer.

See that all garden tools are clean and sharp. Now is a good time to make up bird houses to place in trees and shrubbery about the home.

Pruning may be done on warm days now. Burn the brush and other trash about the orchard. It pays to keep the land and fence corners clean.

Try something new in the garden this year. Some of the new things are well worth while. Don't make a garden entirely of new things or disappointment awaits you.

Try sprouting a few early potatoes in an open box in a light room. When sprouted this way and carefully cut and planted, new potatoes will often be had several days in advance of the regular method.

Large numbers of apple trees were planted in the early days of Minnesota. In a diary written about 1867, O. F. Brand notes that there was an orchard south of Faribault in which 900 trees had been set. These were mostly of eastern origin and a few years later but a very few remained.—Le Roy Cady, associate horticulturist, University Farm, St. Paul.

## ORCHARD AND GARDEN

March 22 to 29

Plant some Duluth or Progressive strawberries this year. You can pick fruit this fall.

Most any of the early vegetables and flowers may be started now in the house or hot beds.

Plant Latham raspberry for home or market. It is proving an excellent fruit for either purpose.

Plenty of barnyard manure is a first requirement of a farm garden. You can't grow good vegetables if they are starved.

The large well developed strains of petunias are worth while in any garden. The flowers are four or five inches across and of fine colors.

Rhubarb may be hurried along by putting a frame over it. Cover with glass. Bank up the frame well if the weather is still cold.

Top working of apple and plum trees may soon be done. Have you poor varieties that you would like to change to Wealthy or some other good sort. Get cions now and be ready to do the work when the season is right.

Don't let another year go by without a good wind break started. Willow, Elm, Poplar or White Spruce are all good to use. The long lived trees are best, but quick growers are good where results are needed at once.—Le Roy Cady, associate horticulturist, University Farm, St. Paul.

## NO POULTRY LIKE THE STANDARD BRED

More standard-bred poultry on Minnesota farms! Poultry extensionists with the state university will preach this doctrine until all Minnesota poultry keepers are converted. All members of poultry organizations are urged to start with standard-bred poultry this spring.

There are three ways, says N. E. Chapman of University Farm, of getting a start with standard-bred birds. One is with hatching-eggs, another by buying day-old chicks, and another by breeding stock. The most common way, and the cheapest, is to begin with a few settings of eggs. The day-old chick method, however, is increasing in popularity. But whatever method is used, good judgment must be exercised in buying, for often the breeders and the hatcheries have a varied supply of standard-bred eggs and poultry stock.

The poultry section of the agricultural extension division of the university is trying to build up flocks over the state and increase the incomes of poultry raisers. Its workers will gladly respond to all calls for help and advice.

## "GUMMED TAPE" MILEAGE GROWING

"What is your county's gummed tape mileage?" This question seems likely to become popular in many sections of Minnesota where the making of homemade dress forms has been taken up by farm women. Julia O. Newton of University Farm, state leader, says that 136 miles of gummed tape so far has been used by Minnesota home demonstration agents in making dress forms, the average being 600 feet of tape for a single form. The making of these comparatively cheap dress forms not only increases the interest in farm dressmaking, but causes the women to hold many pleasant social meetings, so that the work really has a double purpose.

## ORPHANED LAMB NEEDS A FRIEND

The rocky way of the orphan lamb can often be made smooth by the careful and conscientious shepherd. Lambs left alone, with only the flock-master between them and a cold, cold world, may often be raised on cow's milk. Milk from cows recently freshened is the best, and it should not be diluted, says Philip A. Anderson of the animal husbandry division at University Farm, for analysis has shown that ewe's milk is richer in fat, sugar and total solids than is the milk of cows. Every half hour the first day, says Mr. Anderson, give an ounce of cow's milk (two tablespoonsful) to the baby orphan, gradually increasing the ration thereafter. Use a small bottle with medium sized nipple and have the milk at 100 degrees Fahrenheit. After the first week three square meals a day will keep the lamb satisfied.

Then, again, says Mr. Anderson, orphan lambs may be palmed off on other ewes having a good flow of milk. In this work of rebuilding family circles the ewe which has been bereaved can often be made to adopt a stranger by the process of removing the skin from her own dead lamb and placing it for a time on the orphan. An ewe which disowns her lamb will often reclaim it when some of her own milk is smeared on her nose and the rear quarters of the lamb.

It is sometimes necessary to tie a stubborn ewe securely in a small stall so that she will not injure the lamb while it is nursing.

## CAN MAKE SIRUP FROM SWEET CORN

Palatable sirup from sweet corn stalks. That it can be produced and may, eventually, become a valuable side line to many canneries, was information given by J. J. Willaman of the Minnesota agricultural experiment station, University Farm, to members of the Minnesota Canners association who met in Minneapolis.

Mr. Willaman said the actual cost of manufacturing the sirup would be about 30 cents a gallon, or a little more than one-half the 1920 cost of making sorghum sirup. The price for which it could be sold would naturally depend upon its quality. A chemical study, he predicted, would reveal a process for removing all undesirable flavors.

The difficulties in the way of immediate successful manufacture were also pointed out by the college man. A market must be created for the sirup and new plants must be erected because a different kind of machinery from that used in canneries is needed. Mr. Willaman estimated that the cost of a plant with equipment sufficient to make sirup from 800 acres of corn would be about \$60,000 at the present time.

## GOING TO PLANT OATS? READ THIS

Experiments have shown, say farm crop investigators of University Farm, that early varieties of oats appear to be best suited to southern and western Minnesota, and that for central and northern Minnesota and on sandy lands the medium maturing varieties have given the best yields. Iowa No. 10 is an early variety which is strongly recommended. Two other varieties which appear promising are Sixty-day (Minnesota No. 674) and Iowar. For medium maturing varieties Victory, No. 514; Minota, Minnesota No. 512; and improved Ligowa, Minnesota No. 281, are recommended.

## STUDENTS GO TO SCHOOL ON FARM

According to the men in charge of home project work at the Northwest School of Agriculture at Crookston, 122 students of the school did work of this character in 1920, mainly with potatoes, corn, wheat, sweet clover, alfalfa, farm records, milk, pork and poultry. The highest total profit was obtained by Rufus Logan of Ada, who reported \$278.97 from his sweet clover seed crop. Elmer Bredlie made \$195.51 in wheat; Oscar Peterson, \$140.73 in potatoes; and Amos Kasberg, \$139.88 in potatoes.

Home project work carries directly to the farm during the summer following the school term the lessons learned in classes, and places upon the student the responsibility of making his work pay. Some times crop diseases and pests and unfavorable weather cause a loss, but the training afforded is not lost.

At the Central school of agriculture at University Farm the project work has been expanded to include the four propositions of farm production, home life improvement, community social improvement, and community agricultural production.

## THE STORY OF MINNESOTA WHEAT

## NOTE TO EDITORS

What Minnesota is doing through its University Department of Agriculture and Experiment Stations to maintain its standing as the great "bread state" of the nation is a fascinating story. That story is to be 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 first two installments appear below in this number.

## MINNESOTA WHEAT:

## ACREAGE AND YIELD

Wheat growing began in Minnesota about 1849 or 1850. A shipment of 2,000 bushels from Hastings in 1852 is recorded, but it is not known whether it went up the river to St. Paul or down the river. The census of 1859 shows shipments of 369,625 bushels from ports on the Mississippi river. Minnesota flour from hard spring wheat came into the lead in the commerce of the United States in 1858. Wheat production in Minnesota thereafter increased rapidly.

In 1860, it is estimated that 53.4 per cent of all tilled land in Minnesota (230,315 acres) was in wheat. Wheat-raising increased rapidly after railroads penetrated to the prairie section in 1870 to 1872. The acreage in 1872 was 1,267,309. In 1878, 68 per cent of all tillable land was in wheat. Since that time the amount of land used for wheat raising in proportion to land in other crops has gradually decreased, though actual acreages in wheat continued to increase, from 2,592,400 in 1879 to 6,209,506 acres in 1901, with only occasional temporary recessions. Since 1901 there has been a gradual decrease in acreage to 3,003,000 acres in 1920. In the occasional years the acreage has been temporarily increased, but the trend has been downward. The average acreage for the last five year period is approximately 3,750,000 acres with a present tendency toward a smaller rather than a larger acreage.

Contrary to the generally prevailing opinion, yields per acre have not decreased. Records show that the largest average yields for the state obtained in the early days were 22 bushels an acre in 1860 and again in 1865. Records for the years between 1860 and 1865 are not available. Because the yield was 22 bushels in 1860 and again in 1865, the impression is sometimes carried that wheat remained at that high yield during the period. This of course, was not the case. The yields from 1865 to 1879 would average not more than 12 bushels an acre.

The maximum yield on record was obtained in 1895 when a state average of 23 bushels an acre was secured. So recently as 1918 an average yield of 21 bushels an acre was secured for the state. If the yields are considered by five-year periods the variations due to seasonable differences is eliminated and the trend more clearly indicated. The records show that the best yields were secured in the latter rather than the earlier years. A comparison of the wheat crop by five-year periods from 1879 to 1918, inclusive, shows that the maximum acreage was grown in 1890 to 1903. This also was a period of maximum production. The maximum yield, 15.8 bushels for the five-year period, was secured the years between 1894 and 1898.

The total acreage of wheat in Minnesota has given a higher average yield in the 10 years since 1909 than for any previous 10 year period, not excepting

## PRICE ON HEAD OF THE BARBERRY

The common barberry bush is going to have hard sledding in the good year of 1921. The Minnesota state legislature seems likely to appropriate \$25,000 or thereabouts for fighting the barberry, and now L. W. Melander of University Farm, in charge of anti-barberry scouting over the state, is advised that the Spring Wheat Crop Improvement Association through Bert Ball, manager of plants, has obtained \$1,000 from the American Steel & Wire Company to be paid out as bounties on the head, as it were, of the common barberry in this state. Counties in the Red river valley, says Mr. Melander, are to be checked in the farm survey in the United States next summer. The sum of \$5 will be paid for the first planting found in a county, \$3 for the second, \$2 for the third, and \$1 each for the next 20. The campaign will be put on in every county.

even the best years on new prairie land. It would seem therefore that while the wheat acreage in Minnesota is declining to some extent, it is not because of lower yields to the acre.—Andrew Boss, vice director of the Minnesota Experiment Station, University Farm.

## METHODS OF FINDING THE BEST VARIETIES

It is to the advantage of the wheat growers of the state to use the very best variety or varieties of wheat that are available. How are the growers to find which are the desirable varieties and which the undesirable? The answer is, only by accurate and carefully made field tests under comparative conditions. State experiment stations usually can best make these tests as they have men trained to the work and can provide the necessary scientific skill and equipment.

To test on a field basis all the promising new varieties of wheat in comparison with the best of the older ones the following method has been adopted at the Central Experiment Station in Minnesota and at the substations at Crookston, Morris, Grand Rapids, Duluth and Waseca.

1. The official tests. Each year the new varieties, originated in Minnesota and other states and in Canada or other foreign countries, which are pure and which have shown high yielding ability, are grown in the official tests at University Farm and the various substations. The plots are approximately one-fourth of an acre in size. Each variety is grown in at least three regularly distributed plots at each location, in order to take into account possible inequalities of the soil, and the yield of each variety is based on the average yield of the three plots. It is known that plots of this size surrounded by alleys yield higher than large fields under like conditions. In order that the yields from these plots may approximate very closely those from large fields under like conditions, the two outside drill rows from the sides and approximately one foot in width from either end are removed from all plots before harvest. Every precaution is taken in harvesting, threshing and weighing to secure the most accurate data possible so that the yields secured may be those of the varieties for that particular year at that particular location. Unless such precautions are taken, differences in yield due to errors may appear and be attributed to differences in the inherent yielding abilities of the varieties.

2. Assembling data. By January 1 the yields secured at the central and substations and other places where the official tests are made are carefully compiled and checked and a copy is sent to each man directly interested in the work.

3. Deciding on the varieties to be recommended. All of the men interested in this work at the central and substations meet at University Farm during the first week in January of each year. With the results from the official tests for the year before them, together with results from the plant breeding nursery, the merits of the varieties are considered and based on the results from these carefully made tests. Decisions are made by majority vote of those present as to the varieties that are to be increased for further trial or distributed to the growers throughout the state. Before a variety is recommended data must be available that will satisfy at least a dozen men that it merits recommendation. Varieties originated within the state and at other locations stand or fall on their intrinsic worth as shown by careful test.

Following this meeting, a list of the recommended varieties is made up and published in papers throughout the state and in bulletins when this method is thought advisable. This list can be secured each year by any one interested in receiving it and the recommendations should be followed in preference to rumors and hearsay regarding the value of various varieties.

It appears that a united program like this which aims to locate through careful tests the best varieties available at any particular time, to make these available and to give information regarding them should meet with the approval and hearty support of the growers themselves and all those dependent on them for prosperity.—A. C. Army, associate professor of farm crops, University of Minnesota.

## WINTER RATIONS FOR THE COW HERD

With a feed of 30 to 40 pounds of silage daily, says J. S. Montgomery, livestock specialist with the agricultural extension division of the state university, the addition of 12 to 15 pounds of alfalfa or clover hay will provide a satisfactory ration for beef breeding cows. Oat straw, shredded corn, stover or other cheap dry roughage should be provided in outside feed racks. If clover or alfalfa is not available, some protein concentrate such as cotton seed or linseed meal should be added to the ration. One to two pounds daily will be sufficient. A little of such concentrates will sometimes pay, even when alfalfa or clover is fed, if the cows are thin in flesh or are milking heavily. If the silage carries a fair amount of corn, no other grain is necessary. If not, a little grain should be fed to the cows which are nursing calves.