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ORCHARD AND GARDEN

February 1-8

The orchard and vineyard products of California for 1918 were valued at \$173,000,000. The farm products were worth about \$287,000,000.

Now is a good time to get up the year's supply of wood and get it cut.

Has the ice house been filled? Ice cream, cold milk and some means of keeping meat and fruit will come in handy next summer.

Some nice catalogs are being put out by the seedsmen this year. You can get one of them by sending a postcard to some large seed house.

Why not plant a few gooseberry and currant bushes in the garden this year? They yield well and their fruit is appreciated by the gardener.

Many communities are making the community Christmas trees idea permanent by planting a tree in a public place to be used year after year.

Ten million apple trees must be planted each year, according to a recent magazine article, just to replace the trees that are taken out each year.

There is still time to get in the year's supply of ice. Ice harvested in February is likely to be poor, but put up some anyway. It will be much needed next summer.

California grows 90 per cent of the onion, beet and carrot seed produced in the United States. It took nearly 35,000 acres of land to grow the \$3,500,000 worth of vegetable seed last year.

The liquid formed by placing thoroughly rotted cow or other stable manure in water for a short time is an excellent fertilizer for most house plants.

Iowa State college has found that scattering boric acid on the greenhouse walks the last thing at night kills many cockroaches that are out to destroy plants growing in the house.

A small farm, well tilled, will give better returns than a large acreage poorly cared for.—LeRoy Cady, associate horticulturist, University Farm, St. Paul, Minn.

ORCHARD AND GARDEN

February 8-15

Pruning can be done in the orchard on warm days from now on. Burn all trimmings as promptly as possible.

Don't plant cucumbers or other vines on land that raised a crop of diseased vines last year. Department of Agriculture Bulletin 727 gives methods of treating cucumber seed to prevent anthracnose.

Test all seeds this month. This will give plenty of time to replace any poor ones before planting time.

Flowering bulbs may be brought into the living room for growth now if a large number of roots have formed.

There ought to be a good wind-break on every farmstead in Minnesota and about every schoolhouse.

Someone has suggested that the vacant breweries might be used for drying fruits and vegetables. A few have already been made into potato flour factories and the suggestion to use others for fruit and vegetable drying looks good.

Willows are good trees to plant along the banks of waterways to hold the soil. The fibrous roots work toward the water and the network holds the soil from washing.

If apple roots are available, piece-graft a few this winter. Next spring line them out in the garden and a couple of years' growth will give you good trees to start an orchard with.

Garden seed and fruit plants should be ordered now. Dealers in these things are going to be very busy in March and April and the quicker orders are in, the better.

Judging from the scarcity of strawberries and raspberries on the market the last few years, they should be good crops for interested growers to try.

Have the insecticides been purchased for use this year? Now is the time to order them.

The vegetable garden will be just as important this year as last. Plant freely and take good care of the garden. Some fine catalogs have been issued the last few weeks. It is worth while to read some of them.

A farm orchard of twenty-five or thirty apple and plum trees, well cared for, will furnish all the fruit the ordinary farm family can use.—LeRoy Cady, associate horticulturist, University Farm, St. Paul, Minn.

TWENTY-FIVE TREES FOR A HOME ORCHARD

If the home orchard be restricted to about twenty-five trees it can be kept up in good condition with little work, spraying will not be a long job, and enough fruit will be grown to supply the home amply. The man who has several acres in the home orchard will do well to consider carefully the reduction of the number of trees so that he may have a small orchard easily cared for and have the cleared land to use for other purposes. A New Year's resolution to give the home orchard a square deal will include the following items, each of which require little time:

1. Prune either in late fall or early spring.

2. Disk up the old sod between the rows, then let the grass and weeds grow, but mow these two or three times and leave for a mulch.

3. Add a light dressing of straw manure after the disking.

4. Spray two or three times.

This work will ordinarily secure good fruit. Pruning in a small orchard will take less than a day; disking, half a day; and manuring, an hour or two. Spraying can be done after a rain when the fields are too wet to work, and with a barrel spray pump, twenty-five trees can be sprayed thoroughly in half a day. A crop of 25 bushels would be a modest estimate and each bushel is worth at present prices at least \$1 so the crop easily pays for the time expended.

If any one desires information about the care of the home orchard the Division of Horticulture, University Farm, will be glad to help.

EVAPORATED MILK DECLARED HEALTHFUL

Many well informed persons are afraid to use evaporated milk lest its use cause scurvy or rickets. Not the use of evaporated milk, but too great economy in its use is believed by dietitians to be responsible for evil effects.

Scientific investigation shows that the health- and growth-protecting substances which are in solution in fresh whole milk are not destroyed by the process of evaporation. All the minerals present in fresh milk are still present after evaporation. The same food substances also are there, although they have been cooked, giving to evaporated milk its peculiar flavor.

Adults should have a daily allowance of one-half pint of milk a day. Children from one pint to one quart. When evaporated milk is used, however, there is a tendency to economize by using less than this amount. The ill effect is rarely noticed on the strong and vigorous, but children and invalids show it in a short time.

One pound can of evaporated milk is equivalent to one quart of fresh milk. If the latter cannot be obtained or is of questionable quality, measure out one-half cup of evaporated milk for each adult in the family and from one to two cups for each child, then dilute with an equal quantity of water.

Treat milk in every form as a food, not as a beverage.—Lucy Cordiner, University Farm, St. Paul.

WEED BULLETIN REPRINTED

Bulletin 129, of the Minnesota experiment station on Minnesota Weeds, which gives descriptions of many of Minnesota's weed pests and means of eradication, has been reprinted. Copies may be had by addressing office of publications, University Farm, St. Paul.

Editor's Corner

AN EDITOR'S SUGGESTION

The University Farm Press News is indebted to Scott N. Swisher, president and editor of the Leader-Democrat, of LeSueur Center, who has written the editor at University Farm an interesting letter about the new weekly News Letter issued for the agricultural extension division of the University of Minnesota. He says some nice things about the new service, which the editor of the News Letter will try to live up to. He also makes a suggestion which will improve the value of the service to the country weeklies, bringing the news to such papers while it is still news.

The editor at University Farm intends to adopt Mr. Swisher's suggestion. The office of publications at University Farm will always welcome suggestions from editors in the field as to its news service. When it gets to the point where it won't do this it will be vacated to make room for a new editor.

GROVES IN MEMORY OF FALLEN SOLDIERS

As a memorial to those who have sacrificed their lives for us in the world war guns and souvenirs of the war are far too petty. A memorial should be dignified, impressive and beautiful; yes, and living; not a cold, dead pile of stone or concrete.

What can fill these conditions better than a grove of trees? What is more beautiful and dignified? What would be more impressive for future generations than a stroll through the cathedral arches of such a sacred grove? Let each city and village plant a grove in proportion to its size, a living tribute to her sons who took part in the war for freedom. It will grow steadily more beautiful as the years go by and will endear itself to the people as nothing else could. A grove for every municipality in the state!

And for the state itself? What could be more impressive than a double row of trees along the Jefferson Highway from Iowa to the Canada line? Probably more people would see and gather inspiration from such a memorial than ever would see any other that could be erected.—E. G. Cheyney, division of forestry, University Farm, St. Paul.

AIDS FARMERS IN FIGHTING BLACKLEG

The veterinary division at University Farm sent out since April 6, 1918, 2,500 doses of blackleg vaccine. This in almost all instances was supplied either to the county agent or to the farmer, and a printed sheet of directions supplied by the United States Department of Agriculture was sent along with it. This is in accordance with the general policy of the United States department.

In Montana, Wyoming, and certain of the other large grazing states, the ranchers vaccinate their own cattle as a routine procedure each year. It is not a highly technical procedure but does require great care because the vaccine in this case is an attenuated virus, i. e., the cause of the disease in a mitigated form and the dose must be properly regulated.

Recently several new products for blackleg immunization—blackleg culture filtrate, blackleg tissue aggrassin, and blackleg serum—have been introduced. As yet their standardization has not been definitely worked out. It was the opinion expressed at the United States Live Stock Sanitary association at its recent meeting in Chicago that these may, following a careful study and development of a proper means of standardization, supplant in time the old vaccine.—Dr. C. P. Fitch, Minnesota Experiment Station.

WHAT BETTER CARE DID FOR AN OLD COW

According to information just received at University Farm from Iowa state college, Hulda, an Iowa cow 12 years old, which in 1915 produced only 246 pounds of butterfat, in 1918 produced 716 pounds of butterfat. The reason was that Hulda's owner in 1917 joined a cow-testing association and began to give more attention to the care and feeding of his cows. Old Hulda got a nicely balanced ration and good care, and as a 13-year-old produced 429 pounds of butterfat. Last year her owner began milking her three times a day and she came through with 716 pounds of butterfat.

The question arises: Do we give our butterfat-making machines the right kind of care?

COWS NEED ALL COMFORTS OF HOME

The dairy cow which gives a calf every year and from 20 to 50 pounds of milk a day needs a lot more of the comforts of life than the beef steer, whose chief business it is to put on flesh and a blanket of fat. It takes energy, and energy means feed, to produce milk. Therefore, the cow in winter needs to be protected from the cold and from drafts, but should have a sufficient quantity of pure air, along with enough feeds with a little extra carbohydrates to keep her in prime condition. When you think of your dairy cows, say the authorities at University Farm, remember that they need all the comforts of home.

DEAN THATCHER HONORED

Dean R. W. Thatcher, of the department of agriculture of the University of Minnesota, was recently elected president of the American Society for the Promotion of Agricultural Science. This is the oldest organization of the kind in the United States and has been very influential in promoting agricultural improvements throughout the country.

RUSHFORD BOY IS CHAMPION GARDENER

Ralph Baerman, 17 years old, of Rushford, Fillmore county, is the champion gardener of the boys' and girls' garden clubs of Minnesota for the year 1918. T. A. Erickson, University Farm, head of boys' and girls' club work in Minnesota, made this announcement recently.

The champion garden club was that of Winona, with the club at Owatonna second in rank.

The district champions were as follows:

Southern section—First, Irene Johnson, Blooming Prairie, Steele county; second, Glenn Tuttle, Owatonna, Steele county.

South Central section—First, William G. Grass, Shakopee, Scott county; second, Jeanette Simon, Wheaton, Traverse county.

Northern section—First, Margaret Peters, Lancaster, Kittson county; second, Esther Storien, Hallock, Kittson county.

North Central section—First, Ellen Erickson, Mora, Kanabec county; second, Thyra Sorenson, Askov, Pine county.

Baerman, on one-tenth of an acre, secured an income of \$150.48 at an expense of \$35.42, which left him a net income of \$115.06. His prize is a free trip to the annual meeting of the Minnesota Horticultural Society and a \$10 library of garden books, both gifts of the Horticultural society.

The three leaders from the best club in the state and the two leaders from the second best club, together with the champion of each of the four districts, will also receive expenses covering trip to the Horticultural society meeting.

The boys of 15 years or over, in each county, making the best report, will be given expenses to the 1919 state fair and membership in the boys' camp.

Other prizes are offered in the contest by the Hazel Atlas Glass company, at Wheeling, W. Va.

THE FARM BUREAUS SEEK STATE AID

Delegates from nearly every farm bureau in the 86 counties of Minnesota attended a conference at the state capitol in St. Paul, Saturday, January 18, to consider legislation providing for county co-operative extension work in agriculture and home economics through county farm bureaus.

The design of the legislation proposed is to establish more firmly the work of the county farm bureaus as now organized, to broaden their scope, to include not only the interests of farmers but of farm women, and to increase the effectiveness of the whole farm bureau movement.

MAIL COURSES IN INSURANCE AFFAIRS

Two new courses of interest to those who wish to make a study of life and fire insurance are announced by the general extension division of the University of Minnesota. The courses aim to give the basic principles of insurance and such specific information as will aid either in buying or selling life or fire insurance.

The national government and some state governments have undertaken to provide insurance. If this is extended as a governmental function, it will require study on the part of all citizens. Such study can best be carried on under careful guidance. Full information may be had by addressing the extension division, University of Minnesota, Minneapolis.

SULPHUR BLEACHED OATS LOSE VITALITY

According to advices received at University Farm from the United States department of agriculture, oats, or other grains that have been bleached by the sulphur process, lose immensely in germinating power. One sample tested, which germinated 97.5 before treating, germinated 9.5 after treating.

Sulphur bleaching by commercial dealers is done sometimes to give oats of an inferior quality a bright, clean appearance. Farmers are warned against purchasing seed oats from such supplies.

TILE TESTS MADE FREE AT U. FARM

The engineering division at University Farm, St. Paul, will without charge make crushing tests of samples sent in by tile-makers, all carriage charges prepaid. Register your firm name, address and kind of tile you make with the drainage man at University Farm.—H. B. Roe, engineering division, University Farm, St. Paul.

RESULTS IN THE DAIRY CALF CONTEST

Minnesota's first state dairy calf contest, according to figures recently given out by T. A. Erickson, University Farm, state leader of boys' and girls' club work in Minnesota, was won by Walter Sohre, aged 16, Good Thunder, Blue Earth county. He raised a pure-bred Holstein, increasing its weight from 346 to 748 pounds in 169 days, at a net profit of \$24.23. He receives a solid gold medal, and in addition, his expenses will be paid to the boys' and girls' short course at University Farm, St. Paul, next April. His total score was 88.09.

William Dack, of Zumbrota, Goodhue county, with another Holstein won second prize, which will be money to cover expenses in attending the boys' and girls' short course also.

The third prize went to Vivian Randall, a 10-year-old girl of Ellendale, Steele county, who raised a Jersey calf. Her prize will be railroad fare to the boys' and girls' short course.

The first dairy calf club prize was awarded to the Hennepin County Boys' and Girls' Jersey Calf club. This club has 17 members, each of whom owns a pure-bred Jersey calf.

The plan now is to make the dairy calf contest a three year project instead of one.

HOME ECONOMICS IN FARM BUREAUS

The Clay County Farm Bureau has established a department of home economics, which will look after everything in which housewives are interested in connection with farm bureau work.

The farm bureaus at a recent conference in St. Paul outlined plans for the development of their work looking to the establishment of home economics departments in all farm bureaus. Miss Mae Secrest, state leader of home demonstration agents at University Farm, is interested in the movement.

RECIPES CALLING FOR USE OF BEET SIRUP

Because many farms produced beets for the manufacture of sirup this last season, the home economics division at University Farm, St. Paul, is being called upon for recipes in which such sirup may be used. The following are a few that have been tried out by the division and are recommended to those having beet sirup:

Chocolate Cake

$\frac{1}{2}$ cup fat
 $1\frac{1}{2}$ cups beet sirup
 2-4 eggs
 $\frac{1}{2}$ teaspoon salt
 4 teaspoons baking powder
 $3\frac{1}{2}$ cups white flour
 2 squares chocolate

Mix the sirup and softened fat and add the egg. Mix dry ingredients and add alternately with milk to the first mixture. Add melted chocolate. Bake in moderate oven.

Pumpkin Pie

$1\frac{1}{2}$ cups mashed pumpkin
 $\frac{1}{2}$ cup beet sirup
 1 teaspoon salt
 $\frac{1}{2}$ teaspoon cinnamon
 $\frac{1}{2}$ teaspoon ginger
 $\frac{1}{2}$ teaspoon nutmeg
 1 egg
 $\frac{1}{2}$ cup milk

Mix sirup, salt and spice, add pumpkin, slightly beaten egg and milk. Bake in one crust.

Drop Cookies

1 cup beet sirup
 $\frac{1}{2}$ cup melted fat
 $\frac{1}{2}$ cup sour milk
 4 cups white flour
 $\frac{1}{2}$ teaspoon cinnamon
 $\frac{1}{2}$ teaspoon cloves
 $\frac{1}{2}$ cup raisins, cut

Mix the ingredients in the order in which they are given, sifting the dry ingredients together. Drop the cookies by small spoonfuls on oiled pans and bake them in a moderate oven.

FIRST WINTER MEANS MUCH FOR THE COLT

There is a saying that a colt well wintered is half grown. To winter a colt well, see that it gets:

A satisfactory ration,
 Plenty of exercise,
 Fresh water,
 Good quarters.

The colt that does not get these things is likely to arrive at yearling form in a condition that may require two or three years to overcome, if, indeed, it is ever able to overcome its handicap.

SHORT COURSE PLANS.

Watch for the coming announcements of the editors' short course to be offered at University Farm, probably early in May.