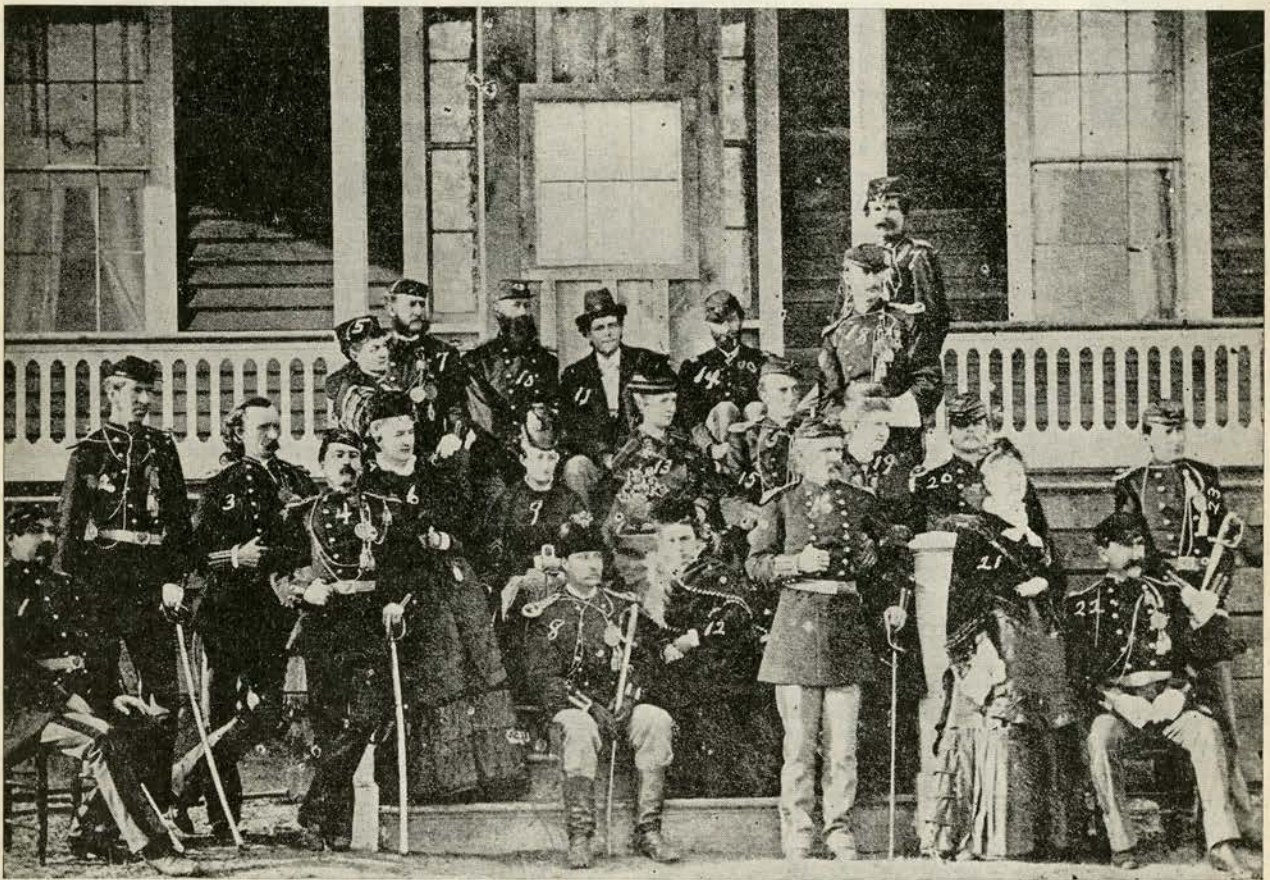


# NORTH AND SOUTH DAKOTA HORTICULTURE

April-May, 1943



1, 2nd. Lt. Bronson, 6th infantry. 2, Lt. G. D. Wallace, 7th. Cav'y. \*3, Gen. G. A. Custer, \*4, 2nd. Lt. B. H. Hodgson, 7th. Cav'y. 5 Mrs. T. M. McDougall, 7th. Cav'y. 6, Mrs. G. A. Custer., 7, Capt. T. M. McDougall, 7th. Cav'y. \*8, Capt. G. W. Gates, 7th. Cav'y. 9, Mrs. G. W. Yates, 10, 1st. Lt. Badger, 6th Inf. 11 Chas. Thompson. 12, Miss Annie Bates. 13, Mrs. Jas. Calhoun. 14, Col. J. S. Poland, 6th. Inf. 15 1st. Lt. Chas. A. Varnum, 7th Cav. 16. Lt. Col. W. P. Carlin, 17. Inf. (B. G. Everett); 17, Capt. Wm. Thompson, 7th. Cav.; 18. \*Capt. T. W. Custer, 7th Cav. 19. Mrs. M. Moylan. ½20. 1st. Lt. Jas. Calhoun. 21. Mrs. D. McIntosh. 22. Capt. Myles Moylan, 7th Cav. 23. 1st Lt. D. McIntosh, 7th Cav.. Of the officers shown above 6 were killed at the battle of the Little Big Horn. Their names are marked with an asterisk. Courtesy of Mr. Russell Reid. Photo taken on the porch of Gen. Custer's home at Ft. Abraham, Lincoln, N. D. about 1875.





April  
May  
1943

## AUDUBON IN THE DAKOTAS IN 1843

By  
O. A. Stevens



O. A. Stevens

In the period 1800-50, several noted scientists visited our region, usually traveling with the fur traders, whose boats plied up and down the Missouri River. This year we mark the 100th anniversary of the visit of John James Audubon, the greatest bird painter of his time. His large edition of the Birds of America had been completed in 1838, and the smaller edition was nearly finished. In the latter work he added 65 pictures, several of them from birds discovered on his Missouri River trip.

Five species were actually new to science and these I shall describe in turn in future articles. About as many more he thought new but they had been described from specimens taken from Europe. Accounts of some of these already have been presented in this magazine: Harris sparrow, Oct., 1931; Brewer blackbird, May, 1934; clay-colored sparrow, June, 1939. The western meadowlark (Mar., 1933) is credited to Audubon, though Lewis and Clark had noted that it differed from the eastern bird. Other western species which Audubon saw for the first time and which we have discussed were: Say phoebe, Apr., 1935; evening grosbeak, Mar., 1936; pine grosbeak, June, 1939. The sage hen (Dec., 1934) was seen by one of the party but none was secured.

Audubon was more especially interested in a new work covering the quadrupeds in the same way as he had the birds. He did not live to see it finished, and his son, John Woodhouse Audubon, eventually drew half of the pictures. John Bachman, a Lutheran minister of South Carolina, wrote or edited the descriptions. Audubon was of course deeply interested in getting observations on the bison, deer and other animals, and in making sketches from fresh specimens. Again he was too late for a "scoop" and secured scarcely any animals not already named.

He had four assistants and engaged other hunters from time to time. Edward Harris, John Bell and Lewis Squires collected specimens. Bell was the taxidermist, and Isaac Sprague was an artist who was soon to be rated by Asa Gray as the best botanical draughtsman in the world. At least two of his beautiful paintings, the purple coneflower and white beard-tongue, are shown in

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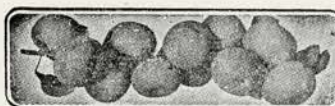
the bird pictures (see the 1937 issue, plates 485 and 493).

The American Fur Company's steamboat, Omega, left St. Louis on April 25. They had on board (Audubon says) 101 trappers and supplies

See AUDUBON IN THE DAKOTAS

Continued on page 45





## NEWSLANTS

By  
H. A. Graves



H. A. Graves

in my reply from Whittier's "snowbound"; and Lowell's "First Snowfall." These poems, memorized in the grades, have never been forgotten, Whittier, telling of going to the barn after the blizzard, says:

"The old horse thrust his long head out,  
And grave with wonder gazed about.  
The cock his lusty greeting said,  
And forth his speckled harem led."

This verse struck a responsive chord in Mr. Porter's memory and he responded with a reminiscence of blizzards, digging out the doorway of the sod barn and of the warm but hungry livestock within.

Mr. and Mrs. J. R. Prante of Milnor have for several years spent the winter in the vicinity of Upland, California. His home on the farm in Ransom county fairly shouts of the extent of his travels. They have collected many things of horticultural interest and have a well planted farmstead to return to each spring. J. R. has just come through with another of his long and interesting letters regarding the many things he has observed on this winter's trip. I am going to have a few copies of the letter made. It is too good not to share with others. I wish space would permit the inclusion of it here.

Byron Bobb of Haynes, has the honor of being the first donor for the 1944 premium list. He assures us that the Indian Breadroot transplants readily and that he will have a substantial number of them for premiums in 1944.

The City of Williston, aided and abetted by County Agent Karl Swanson, has already laid worthwhile plans for Victory Gardens. In order that as many people as possible may have some garden, each fertile lot with sufficient sun exposure is to be divided into four garden plots 25 x 70 feet. In response to a request for a plan for such a garden, a suggested plan for a 25 x 70 foot plot has been mi-

neographed. Anyone wishing a copy of this plan can have one by dropping me a card or contacting any North Dakota County Extension Agent.

Everyone should use up any and all garden seed left over from previous years—IF this seed still has a germination test of 60 percent or over. Testers are readily made from two moist (not wet) blotters between two saucers or plates, one inverted over the other. Count out 100 seeds and count the sprouted seeds on days outlined in the following table.

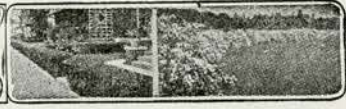
Variety	First Count	Final Count
Beans	3 (5)	6 (8)
Beets	3 (4)	10
Carrots	6	14
Celery	10	21
Cabbage	3	5
Cucumber	3	5
Lettuce	2 (3)	4 (5)
Muskmelon	4	10
Squash	4	7
Sweet Corn	4	7
Turnip	3	5
Onions	4 (5)	4 (5)
Parsnips	6	21
Peas	5	8
Peppers	6	14
Pumpkin	4	7
Radish	3	5
Tomatoes	4 (5)	10 (14)
Watermelon	4	14

The reason for making first and final day counts is that it enables one to more accurately determine the vitality of seed. As a rule, some seeds sprout earlier than others and should be removed so that the sprouts cannot be tangled with those that appear later. (In a home-made tester, the first count may be a day or so later than I have indicated here.)

For convenience's sake, we will also group garden crops according to the time their seeds may be expected to retain their vitality if properly stored. One year: Parsley, Parsnips, and Salsify. Two years: Peas, Peppers, Sweet corn, Carrots, and Onions. Three years; Beans, Celery, Okra, and Tomatoes. Four years: Kale, Beets, Cabbage, Cauliflower, Pumpkins, Radishes, Spinach, Squash, and Turnips. Five years: Cucumbers, Eggplant, Lettuce, Muskmelon, and Watermelon.

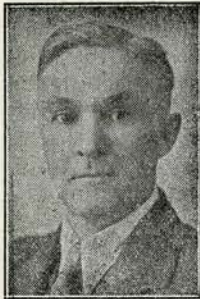
Plant seeds of lower germination more thickly than you would fresh seed of high germination.





## MANITOBA NEWS LETTER

By  
W. R. Leslie



W. R. Leslie

European plums have received very little attention on the prairies. During the past season many varieties and seedlings fruited and revived interest in this fine fruit.

During the past 10 years the Dominion Experimental Station at Morden has tested practically all European varieties grown commercially in Canada. Six varieties have been tested from Norway. A considerable number of varieties have been obtained from Russia; Central Experimental Farm, Ottawa; Vineland Experimental Station, Ontario, and other experimental stations and private individuals in Canada and the United States. Some of the varieties tested included the following: Stanley, Tragedy, English Damson, Reine Claude (several types), Victoria, Early English Prune, Admiral Rigney, Yellow Egg, Carleton, Prescott, Nepean, Lanark, Belgian, Reine Claude x Voronesh A and B (from F. L. Skinner), Mount Royal, Lunn, Raynes, Kozlov, Krikon; Russian Green Gage, Italian, German, Agen, Bradshaw, Coes Golden Drop, Imperial, Hall, Ponds, Skorospelka Krassnaja, Tiorn Dessertny, Imperial Epineuse, and a few under number. Most all made good growth the first year but very few were alive after three years.

The most promising varieties considering hardiness, productiveness and quality are Raynes, Morden #802, Russian Green Gage, Mount Royal, two Reine Claude x Voronesh seedlings from F. L. Skinner, Dropmore, Manitoba, Shorospelka Krassnaja and Tiorn Dessertny from Russia.

A considerable number of varieties, such as Carleton, Prescott, Nepean and Lanark, from the Central Experimental Farm, show considerable hardiness but have not commenced to bear. Other varieties, such as Kozlov and Krikon are in poor quality.

Seed of Coes Golden Drop and Grand Duke was obtained from the Vineland Experiment Station, 1933. Seed was also saved from a basket of imported Damsons. Most of those which have survived, - - and there is a great variation in their hardiness, bore their first fruits this year. Most all were late in ripening and were frosted before being harvested. A few are quite promising and have been propagated for further testing.

In general, European types of plums are slower to come into bearing than the hardy types commonly grown on the prairies. Test years may be expected every few years which will severely damage all but the very hardiest. They also tend to sunscald more and the question of congenial stocks may be of considerable importance. The pollination problem is definitely important with most European varieties.

Winter can be a very interesting part of the year. At the Morden Experimental Station, this Christmas season is very charming with about 165 acres of trees and shrubs, a considerable population of winter birds, and a blanket of glistening white snow about six inches deep.

Winter birds contribute greatly to the pleasure of persons living on the interior Great Plains, where winter comes in definite form and holds sway for several months. The presence of trees and shrubs encourage birds to come and to stay. Evergreen trees, and those trees, shrubs and vines which retain their fruits, are particularly effective in causing birds to dwell on an estate during the depth of winter.

Chukar partridges are adding much entertainment. They are the most trusting of the grouse family, and have roamed the lawns and orchards all year. One family of thirteen chicks that hatched in a seed-frame are intact. They roost in open buildings, on the roof of the verandah, and in other nooks about the farmstead. Their chuckling noises are loud and emphatic, although less frequent than when they trotted over the green grass in summer and autumn. Hungarian partridges are numerous. They are very fleet of foot and swift on the wing. Their beats are mostly corn fields and in orchards. Native grouse are few but very welcome as they come twice daily to dine on hawthorns, small crab apples, and to join the partridges at the grain box feeding depots.

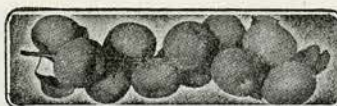
Pine grosbeaks were first seen November 8. They enjoy eating seeds from Villosa lilac. That diet is plentiful for them. A flock of 47 starlings came soon after. Their habits here remain puzzling. Their numbers dwindle as the new year advances and thus far the summer season has remained free of these peculiar gregarious birds. Black-capped chickadees arrived with December. Their presence brings to mind pleasant memories of Canadian pine woodlands. The occasional Downy woodpecker observed is another visitor commonly associated with northern evergreen forests.

A few blue jays always show up for the dormant season. The glistening blue of their coats contrasts

See MANITOBA NEWS LETTER

Continued on page 47





## GARDEN NOTES

By  
W. E. H. Porter



I have an incurable complaint; regardless of pious resolutions in the fall, to limit or eliminate any future purchase of nursery stock, I really have all I can properly look after, as soon as the catalogs arrive, from Mid-January on, the siren maid in summer garb beckons and so the tempter wins. The only saving grace of this victims habit being a check up with Bailey on cold weather hardiness, tho with Oscar Will's offerings, even that can be dispensed with, but joking apart, it is good news to see all Will's hardy new roses and most especially a real hardy climber, the Ross, from Indian Head, Sask., Canada. Feb. 3rd. A steady south wind and 19 above zero; how good life seems to be again. The MANCHESTER GUARDIAN puts out some beautiful art calendars with an appealing scene for each month, subtending which, are a few lines selected from the immortals. One of these hangs on my kitchen wall. For February is the typical English village of Welford, in Warwickshire, with its thatched cottages, dormer windows, gardens enclosed by stone walls and the church tower showing in the background and these lines, by Thomas Moore:

Who has not felt how sadly sweet  
The dream of home. The dream of home  
Steals o'er the heart too soon, too fleet,  
When far o'er sea or land we roam.  
What memories one recalls! On Feb. 3rd., a swim in a Somersetshire river as it rushes onward to the Severn estuary, the air quite mild in mid-month in Lincolnshire and a lawn ablaze with purple, white and yellow crocuses; a large hibernated brimstone butterfly sailing down a grassy glade in a Wiltshire wood. It has been said that Tom Moore's poetry is just pretty rhyming, if so, rhyming can be sublime. Feb. 8th. Winter continues with unrelenting grip; we seem to be under the influence of a well established anticyclone which is and will be hard to dislodge and altho on sunny days the snow does diminish slightly it is always renewed with accrued interest, even a zero average wears down resistance at the age of three score and ten. One of our Winnipeg members writes me that during that January cold wave 47 below was recorded in the city and below 50 below a few miles out in the country. I believe that our lowest around here, 140 miles south-

west of Winnipeg was 43 below. To return to the subject to my besetting sin, Rex Pearce's offerings are, as usual irresistible. Veronicas especially, for seeds germinate easily and all seem to be hardy here. A white variety of spicata appeals strongly. As confession is said to be half way to amendment I must admit that I have never seen, much less owned a white Speedwell. Wayside of Mentor, O. offers Blue Peter, the best yet in blues, from England and from Pearce are two new bedstraws which if as attractive as our native boreale, will be an acquisition. Also a white variety of the pretty Geranium Herb, Robert. Feb. 12th. Winter delivers a vicious kick-back, sub-zero again and driving mist of snow urged on by high wind. I seem to have a slight attack of pleurisy, painful stabbing chest pains, especially when chilled doing chores and trying to coax that awful parlor furnace to give a little heat in the morning. It is childish to regard Nature as a benevolent Dame, rather she is a relentless enemy without pity, to be outwitted when possible, but turning to Holy Writ, I find an understanding sympathy in the book of Ecclesiastes, chapter 4, verse 10, which says "Woe to him that is alone when he falleth; for he hath not another to help him up." From what I read, an Eskimo oil lamp gives stronger and steadier heat than a fire of lignite coal. My wife, who was an excellent cook, and took pride in her handiwork, refused, quite rightly, to even try to bake with it, no wonder our North Dakota supply is inexhaustible. Feb. 18th. South wind, sunny, 38 super zero, indeed a promise of better things to come, but how such promises this winter have been unfulfilled! Gathered berries of that nice New England thorn Crataegus punctata that hung on the bush all winter. The bush stands in deep snow and the bark is shiny and buds are swelling. Thanks Mrs. Briley for your review of new book 'Edible Mushrooms', in current issue of HORTICULTURE, reading which, it seems that there is a surprising amount of good food going to waste thru sheer ignorance and so in the interest of food conservation I have promptly ordered that book from the UNIVERSITY PRESS, of Minnesota. Feb. 21st. Our spell of spring in winter continues with day temperature of 35 up, much above normal. On the principle of self-determination my lawless cows have spent the last two nights on the open range with apparently no bad effect; perhaps they carry a strain of musk ox. Continued intense cold and poor light is not conducive to winter flowers; last fall's high hopes in that respect still being hope deferred with, however,

See GARDEN NOTES

Continued on page 46





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## BRIDGE GRAFTING

By  
H. R. Woodward



H. R. Woodward

Late in the summer of 1939 a copy came of the bulletin, *NOWE W SADACH I SZKOLKACK, LECZENIE I WZMACNIANIE JABLONI*, by Dr. Wladyslaw Filewicz, experimental pomologist in Warsaw. This bulletin is a special copy sent to the late John S. Robertson, by Dr. Filwicz and probably came in the last second class mail sent out of Warsaw before the German bombing attack in August of that year. It is doubtful if many copies reached this country.

This manuscript is printed in Polish hence it has been a rather difficult and slow process to interpret. The paper concerns itself mainly with a review of all literature concerning bridge-grafting and invigorating apple trees and then goes into some detail in regard to the experimentation done at the Sinoleka orchards located some 60 klm. (37 and one-half miles) east of Warsaw, in a climate where only resistant apple varieties do not suffer from frost and winter freeze. This is known as the Sinoleka Pomological Experiment Station, Sosnowe, Poland.

Some of Dr. W. Filewicz's paper is devoted to a discussion of methods used in bridge-grafting and since some of the bibliography includes bulletins from this country and Canada, we will not say much about that feature other than tell what it is. Frost injuries are the greatest disasters of the Polish orchards. Severe winters have partially killed many trees and the country before German invasion was faced with a great economical problem of saving trees before they met premature death. The experimental work in the Sinoleka orchards began about twenty years ago and in 1939 had produced some good results.

Bridge-grafting consists mainly of taking healthy young scions and forming a bridge or series of bridges, double or triple, across wounds caused by sun scald cancer wounds, freezing, crown rot, crotch injuries and other things which will cause rot or decay in the trunk. The advantages seem to not only include the saving of the life of the trees but to increase the yield, to insert more highly resistant branches on the trees and to invigorate the branches already on the trees.

The history of a section of the Sinoleka orchard

consisting of tender apple varieties, neither invigorated nor bridge-grafted is compared with another section of the orchard where such methods have been applied. We call such in our experimental laboratories in this country a control group. In such experimentation the behavior of the experimental group is kept under as near similar conditions as possible as the natural or control group, so that comparisons can be made frequently and in all ways. In this case soil, weather, temperature, humidity, sunlight and rainfall conditions are the same for both. The only difference being those trees upon which experiments were made.

The Sinoleka orchards consist of an orchard planted in 1903, three commercial orchards, two planted in 1912, 1913 and one after 1932. The orchard of 1903 was neither bridge-grafted nor invigorated. The trees planted were tender varieties such as Cox Orange Pippin, Winter Gold Pearmain and Laudsberger R-tte. The last commercial crop from this orchard was obtained nineteen years after planting and twenty three years later practically all had died.

The orchards of 1912 and 1913 were chiefly of the same varieties. They suffered severely from the October frosts of 1919. In 1922 bridge-grafting was applied to all injured trees. Most of them recovered and in 1937 they were growing well and producing large crops. This has been accomplished and in spite of the fact that large sections of the trunks of some trees were dead. The life was carried thru the bridge from the roots to the live part of the trunk above.

Another interesting feature has been the repair of "rozdarze drzewo" or split trees caused by wind or from excessive weight, presumably snow, before the leaves had fallen in the fall. The trees are braced, the branching cut back, and bridge-grifts applied to the split parts.

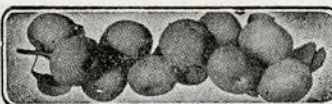
Because of the present grip on Poland by the war machine of the Germans we cannot know the present situation in the Sinoleka orchards. It will be interesting to know the final outcome of these orchards if not destroyed by bombs. Dr. Filewicz worked at his investigation with real fervor and it is hoped that he is continuing or can continue his work.

Pat says, if he had a face like a Jap he wouldn't care if he lost it or not.—Kablegram

### FOXTAIL SAYS:

The feller that brings home the bacon is still quite a guy, but it's his wife that takes back the grease.—The Prairie Farmer.





## GARDEN CLUB GLEANINGS

By  
Mrs. G. M. Jorgensen



J. E. Jorgensen

It gets in your blood, this "pulse of Spring", as every turn of the page in a magazine, catalog and garden pamphlet shouts at you to "Stop! See Me! I'll be king in your garden this year! I'll be the vegetable to out do all vegetables! I'll redeem your faith in gardening and in the advertiser's dreams, for THIS of all years you will have no trouble in reproducing the exact counterpart (maybe even a bit bigger, and more glamorous, more fruitful and more juicy) of the picture in the catalog! See Me!"

Some one has said "there ought to be a law against seed catalogues" (think what the legislators nearly did to those poor modest little dentist ads), but oh, what a lot of anticipatory joy we'd be missing if there were none! These garden rousers stir your blood, make it run fast, throb through your veins, and beat against your temples in little whirlpools of ecstasy like the swift little rivulets of spring. They carry you forward to action just as a good garden club meeting will do; and just as Brookings Garden Club meetings must do.

A Walter Winchellism says: "There's an off-season for nearly all flowers except blooming idiots". And there's always an off-season for attendance at club meetings in some places; but the Brookings club is "having just the opposite trouble of finding enough chairs for all of them to sit on", according to a recent note from Leon C. Snyder. He continues, "In February, during one of the worst storms of the winter we had about forty people out, and last night about thirty-five. 'Doesn't that sound like a group you'd like to join?' Mr. Snyder attributes the good attendance in part to the food rationing program which brings people out to learn how to make "Rommel Stew", and in part to the college personnel from which they draw speakers.

This does not explain it however, for food rationing is with us all and brings with it the desire to learn how to supplement our diet's deficiencies from the earth's good bounty. Then too, the extension speakers from State College are available to all garden clubs free of charge, and they are such friendly folks, they have such a fund of authoritative information, and are so very eager to help that it is always a great pleasure to have them with us. Only the fear of being turned down for monopolizing

their services will keep you from asking them every time. That leaves the leaders' enthusiasm, and the program's interest which must both be great enough to draw people out, and evidently they have both at Brookings.

If programs alone will insure a record attendance at meetings, the Beach, North Dakota Garden Club of which I have spoken before, should have a loud and joyful "present" shouted from every member at roll call. Never have I seen a more fascinating topical array in any year book than in the one which Mrs. Grace Houck has just sent me for 1943. It would put anyone in a dither to get to every meeting, and it makes me more anxious than ever to see more of the club programs from our North and South Dakota gardening groups. Perhaps we can have a contest later on. There will be more about the Beach year book another time, but if any club is anxious to know how some of the programs are arranged before then write to me personally.

Before it gets too late in the season let's jog your ambitions with a brief summary of projects some clubs are undertaking for the summer. In connection with the Victory gardens, community gardens and community centers for garden information, consider the possibility of gardens at nearby Army bases. There are always garden minded soldiers and officers whose spare time hours are spent in beautifying their outdoor surroundings. To them, grass seed, flowers, shrubs and trees for landscaping the premises would be a boon, and a grand gesture for the clubs who donated the plants. Army Posts and divisions within the Post often have a friendly rivalry in beautifying their places, so a club might adopt one battery or one regiment's quarters and see that it is kept planted. It would be wise to write to the commanding officer of a post at once if you have such a project in mind.

In your zeal for Victory gardens do not neglect the trees and their planting. Though trees are available in quantity from Pierre, many people will not bother to send for them, but would appreciate just one or two if it is on hand right at the planting time. The Dell Rapids Garden Club once distributed one hundred Ponderosa Pines among the townspeople. The Iroquois Garden Club has planted a number of trees, and "one on the Methodist Church lot speaks for itself in its beauty," says Mrs. F. H. Van Tassell. That same club made flower gardens in the local cemetery. A grassy plot in the center of the beds serves as the site for the "Services for the Unknown Dead" on Decoration Day. Lanes of trees are often planted

See GARDEN CLUB GLEANINGS

Continued on page 47





## FRUIT AND VEGETABLE NOTES

By  
F. X. Wallner



F. X. Wallner

Jan. 21st. Again on my way to the Pacific coast, but all I can see from the frosted windows is snow and ice at Bristol. Mrs. Bradley, of the cafeteria family, of Sioux Falls, suggested that I buy some butter and this I kept on the window sill all the way because I was not allowed to put it in my checked baggage. Jan. 22nd. We are 3 hours behind time and lost about 2 hours more at Harlowtown, thawing out the pipes on the sleepers. This is also

the place where we change to the electric motors that take us across the mountains. Before reaching the divide, the weather changed to warmer and the frost left the windows, the clouds disappeared, the sun shown on the snow on frosty evergreens, that the passengers and three cars of soldiers enjoyed very much. At Butte most all got out to walk on the platform in bright sunlight and warm air. It was supposed to be a ten minute stop but the train pulled out in less than five minutes. When we were on our way, I discovered two women and their three children were not in their seats, where all their baggage and clothing was. I rushed to the fore part of the train to tell the conductor that some of his passengers were left behind. It did not bother him much, but the rest of us who had become acquainted with them, started planning what to do about it when the five came in from the back coaches; quite a relief to all of us. Most of the snow is on the west coast between Spokane and Seattle, some places along the way, buildings and ranches were completely covered with snow and the evergreens and mountains were beautiful and the soldiers enjoyed it very much. At least there is no danger of forest fires at this time, but the dead trees on the western slope, is a reminder of the fires of other years. The second last tunnel on the trip is on the western slope at an elevation of 2564 feet and is 11890 feet long. I delivered the young mother and two little children from Mitchell safely to their daddy at Portland but I slushed in the deep snow for several hours before I found the daughter's home. Boy oh Boy, I wished I had one of the carloads of vegetables here instead of at Chicago. They almost mobbed a trucker that had carrots and parsnips and all root crops are about 10 cents per pound, green peppers 15 cents each, red cabbage at

\$9 for 80 lbs., white cabbage at about half that and green cabbage from Texas at 15 to 25 cents per head of 3 or 4 pounds. One of the interesting places I visited in Portland was the old Forestry Building I went thru four years ago, and I took notes that I did not, before. Erected in 1904 by the state of Oregon for the Lewis and Clark exposition held in 1905, it is 206 feet long, 102 ft. wide and 72 ft. high. The main part of the building is the 50 Douglas fir, 54 ft. high, 6 ft. in diameter at the bottom and 5 ft. at the top, each containing 8000 feet of lumber. There is a plank of Oregon fir 8 ft. 7 and one-half inches wide, 6 inches thick. A sugar pine cone 20 inches long, a poison ivy 20 ft. high taken from a tree, looks like a lattice work of 3 and 4 inch vines, almost petrified. The Curly-grained big leaf and myrtle are perhaps the most rare woods of all. There is bark of the Sequoia 3 feet thick and there was finished lumber 3 ft. wide in more than 20 kinds of wood. The large size of the Black Hills Hawthorn, western chokecherry, red elder and black cottonwood, also 2 black walnut stumps 9 ft. in diameter and 575 years old, show how trees grow here. Another interesting exhibit is a Sitka spruce 270 years old that sprouted in the bark of a fallen cedar 100 years before Lewis and Clark reached Oregon, the spruce enveloped the cedar log and rooted in the earth beneath. The cedar log has 304 annual rings and was two feet in diameter when Columbus discovered America; both the cedar and spruce are still in a perfect state of preservation. Feb. 4th. I spent most of the day going from desk to desk and building to building about Portland, to get placed in the Kaiser ship yards as pipe fitter helper, but just before the picture taking and finger printing they discovered I was born in Bavaria and I must show my naturalization papers before I could get into the shops. I wanted to know how it felt to earn \$1.15 per hour on the graveyard shift, but had I leaned against a girder and fallen asleep, the welder would have had me welded to the steel plates. Feb. 8th. Today I helped daughter with the heavy work for the annual banquet for the members of the Multinoma Athletic club. The 400 had set before them 14 big cold turkeys, 70 big hot hams, several gallons of potato salad and spaghetti, several trays of relish, a crate of new green cabbage in family style slaw and many other good eats. The flower decorations were yellow candle acacia and daffodils. Last night they had me over at 1744 N. E. 42nd Ave. where Mrs. A. Nelson has "A bit of Sweden" at the smorgasbord. A hungry man goes around the smorgasbord several times, filling his plate with all kinds of Swedish relish, then you get your dinner and dessert.





## BOOK REVIEW

By  
Mrs. F. Briley



Mrs. F. Briley

The Herbalist, a Publication of the Herb Society of America. Horticultural Hall, Boston, Mass.

This little chatty, paper covered book is full of what might be called "forgotten" things. It reminds one of the old-fashioned almanac, or is the almanac old fashioned? In the Herbalist you will be interested in the oddities that are discussed about herbs, and other things too. We learn that history and folklore are full of references to herbs such as chamomile, silphium, the sassafras tree, lemon verbena. Naturally then, other topics fit into this interesting book; water clocks, forgotten lore, handbooks, pot herbs, bee plants, lovely illustrations and clear cut line drawings, help to make the Herbalist excellent for use and for delight. The Herb Society has also sent as Review copies, three recent publications of the Society. 1. Some Sources of Herb Seeds, Plants and dried Products, Information Sheet No. 5. No charge. 2. A suggested Reading List of Herbs, Information Sheet No. 6. No charge. 3. The Use and Methods of Making an Herbarium, price 25cts. Today there is a demand for herbarium specimens used for study by botanists and students. They want as good material as possible to study. Plants are often collected in far off places and sent thousands of miles away from where collected, to be studied and correctly named. This would prove an excellent hobby and, with the help of The Use and Methods of making an Herbarium, a garden club should find it of interest and value to make a specialized herbarium. Another interesting publication on herbs is Try Growing Herbs, compiled by Helen M. Whitman, for the New York unit, Herb Society of America, price \$1. It is a handbook for experimenters and gives at least sixteen basic facts about 47 herbs. On the page opposite the information on each herb is space for the Experimenter's records. The keeping of these notes is an important feature of this handbook.

The Government Regional Laboratory in California is working with fruit pectin to perfect a salve base for treatment of burns. It is stated that apple pectin is proving better than orange pectin for this purpose and the navy is using some of this material for treatment of burns.—Maryland Fruit Grower's News Letter.

## AUDUBON IN THE DAKOTAS

(Continued from page 38)

for the trading posts. They reached the mouth of the James River and there began seeing bison on May 20. They passed the Cannon Ball River June 5 and observed that they were gaining on the season. Arriving at Fort Union June 12, they remained until August 16. On their return, one stop was just below the Big Sioux River on October 1, where they hunted wild turkeys.

Audubon kept an extensive journal which was lost for many years. It was published in 1898 but still is rather inaccessible. It is full of notes on weather, Indians, animals and men of the day. They had much rain, frost on June 6 and 7, some hot weather and many mosquitoes.

Items of horticultural interest include several references to the excellence of the service berries and to some of the gooseberries. Fort Union, six and one-half miles above the mouth of the Yellowstone River, was rated as the best built trading post on the river. A small garden nearby furnished "peas, turnips, radishes, lettuce, beets, onions, etc." A larger one of one and one-half acres, had produced 520 bushels of potatoes in 1838 besides other vegetables, according to E. T. Denig, one of the men in charge.

Steamboats had been going as far as Fort Union for 10 years, and they made great inroads on the timber along the river. No coal was used though Bell noted a vein two feet thick beyond the fort where it had been burning for a long time. The captain's record of the same trip has been published by Chittenden (American Fur Trade of the Far West). He noted "wood" or "good wood" to about the south line of Nebraska, where difficulties began. He had to use cottonwood or occasionally could get ash. On May 22 he had some oak but it was "poor for steam". He noted that the cedar at the mouth of Medicine River would make that a good place to get wood if the river channel would stay in the right place.

Drift wood was a last resort which became more frequently necessary on the upper parts of the river. On June 5, near the Cannon Ball River, "we fill the boat with worthless wood which makes me curse all the rest of the day. It is only by the aid of rosin that we can raise barely enough steam to keep us moving very slowly".

FOXTAIL SAYS: Sledge Wicup has served notice that he can't enter no more hog callin' contests for a while. He's six hogs over his quota for the month already—Prairie Farmer.



## SECRETARY'S CORNER

By  
W. A. Simmons



W. A. Simmons

In their Clip Sheet, the Dept. of Agriculture has announced that a fair supply of 3-8-7- chemical fertilizer will be available this year, in packages of from 10 to 100 lbs., for use in food growing only, not for lawns or ornamental plantings. They say this can be broadcast at the rate of 3 or 4 lbs. per 100 square feet, but a more economical use is to open a furrow 2 inches deep and 3 or 4 inches wide, 2 inches from where the seeds are to be sown and scatter the fertilizer along this furrow at the rate of 1 pound per 25 square feet, covering this with soil. In this connection, don't forget its use as a starter solution when setting out plants. Use a handful of fertilizer for each pail of water, pouring about a half pint of the solution in each hole that is to receive the plant. In the case of tomatoes, no further fertilizer is needed till the plants have set fruit. We tried this last spring and found it gave the young plants a nice quick start. The same sheet tells of a new army spread that does not require refrigeration. The spread consists of creamy butter, fresh cheese curds, skim milk powder and butter flavor and color. This is packed in 4 and three-quarter oz. packages and 150,000 of them will be turned over to the Red Cross for distribution among wounded American prisoners of war in enemy hospitals. It is also being sent by the Quartermaster Corps to soldiers stationed overseas. With butter up to 50 cents per pound, many of us civilians would be glad to have it if the supply ever reaches a point where some can be released to us.

"It may surprise many," says Secretary of Agriculture Wickard, "to learn how much the home production of food can add to the total supply. In 1939, there were 4,800,000 farm home gardens. They produced more than \$200,000,000 worth of vegetables—worth a little more than the vegetables grown for sale that year on 3,000,000 acres. This year we hope to have 6 million farm gardens and about 12 million other home gardens, in cities, suburban areas and small towns. The backyard gardens will not average as large as farm gardens, but the combined efforts of 12 million town and city families can go a long way toward increasing our supplies of the vegetables—and in some cases the fruits—that are important in wartime."

The time for pruning orchard trees is fast approaching and here is the latest advice of the Dept. of Agriculture as to the dressing for pruning wounds: "A wax-like dressing for pruning wounds on apple trees comes close to meeting the ideal requirements for protective dressings. Some of these requirements are; ease of application, resistance to weathering, non-injuriousness, and porosity sufficient to allow some degree of aeration of the treated area. This dressing—8 parts of rosin and 3 parts of sardine oil heated together — showed superiority in these qualities compared with other dressings. Shellac and this rosin and fish oil mixture gave the best results of any of the many dressings tested by the Department. Shellac permitted better callus development than did any of the waxy dressings, but when special protection against adverse weathering is needed a waxy dressing is considered preferable. If apple trees are pruned in early spring, wounds heal most readily and are least likely to enlarge because of winter injury." Here are some additional plant premiums that reached us too late for publication in the March issue: offered by Gurney, Inc. Yankton;

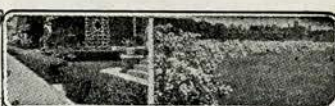
- 27—1 Minnesota No.17 plum tree.
- 28— Coronation cherry tree on Japonica roots.
- 29—1 Pagoda tree.
- 30—1 Anoka Apple, dwarf.
- 31—5 Rudy Raspberry plants.
- 32—1 hybrid amaryllis bulb from State College. These were bred at the College and are very large bulbs. I have seen them in bloom and think they are the very handsomest amaryllis I have ever seen.

## GARDEN NOTES

Continued from page 41

one exception, that airplant thing Kalanchoe, which by early January had defiantly developed a flower stem and, with a rise of temperature buds appeared all of which are now breaking out into cymes of flaming red, carried on plant, like those of Mertensia. Tho a native of Madagascar, this plant will thrive in a cold room and is small enough to place on the narrowest window ledge. I believe it can be propagated by layering a leaf and who in North Dakota would want to be without this pretty adaptable thing which can be purchased from Rex Pearce. It does not appear that I will have any more flowers during the remaining few weeks of winter.





## HORTICULTURAL NOTES

By  
Claude A. Barr, Smithwick, S. D.

Yesterday I had the pleasure of speaking to Mr. H. R. Woodward on the street in Hot Springs, then came home to the reading of my February **HORTICULTURE** and the surprise of his story of the buffalo grass turf on the High School football field. I would corroborate all Mr. Woodward says of this good grass and perhaps stress the fact that it stands up well under the punishment of football traffic. This it does after completing a good seasonal growth, but I would add that it is no discount to a very valuable grass that in a lawn it needs protection, as do other grasses, against year-round trampling.

I was interested too in Mr. Woodward's account of the Mountain Mahogany in the January issue. Years ago John Robertson showed me his solitary plant, a great bush near eight feet in height and probably at its maximum development, with many slender arching and spreading stems from the ground, a true shrub type and of excellent habit. The plant is not rare, as Mr. Robertson believed. In fact it is frequent on both sides of Hot Brook Canyon within a mile of Hot Springs, and in several more remote places I have found it forming thickets or chaparral. It spreads from seeds and not at all from the root.

Mr. Beebe, in the issue just read, would like to know of its growing in dry places and outside of the Hills. I have the dope, Mr. Beebe. My oldest plant is now eight or nine years old, growing in a soil that can hardly be excelled for drying out. It is now only five feet high for many of its years have been exceedingly dry and I believe it is naturally slow growing. Its width is about half the height, the stems well erect, the general appearance pleasing. Only the older plants, even in the wild, display the arching habit. My bush flowered for the first time last year. Older specimens which flower heavily—the blossoms are more or less green but not without interest—give a spectacular effect in late summer and fall when the shimmering silvery seed plumes are mature. An enlightening note on adaptability is taken from Gates' *Flora of Kansas*, which mentions the occurrence of Mountain Mahogany in that state on hills in the western part, with the explanation, "The flood waters of 1935 spread seeds along the flooding Republican River." Its original habitat is in mountains where it apparently prefers the somewhat shaded and moister north slopes.

Having the advantage of instruction from John Robertson in my early orcharding and having some

twenty-seven years experience of my own I cannot hesitate in calling attention to Mr. Leslie's specifications for spacing fruit trees and bushes, for the benefit of prospective orchard planters in the higher and dryer portions of the plains, such as my own location. Fruit plants will continue to be set out and fruit will be grown more or less successfully where spacing requirements, due to climate and soil, are greater for all types mentioned by Mr. Leslie. It is a question not so much of the ultimate size of the tree as of the ultimate root reach and limitation of moisture. My first dozen apple trees were planted in 1916. They are now but 12 to 15 feet tall, some spreading to 18 feet, yet it has been evident for many years that the spacing of 30 by 30 feet is insufficient. The signs of over-crowding are no mystery. They are seen in slowing up of the rate of annual growth as the roots begin to compete for moisture and in the inability of the trees to grow their fruits to good size and proper maturity. When these results are observed in years of good moisture and when the crop is only moderate or light, realization of faulty spacing is rather tragic.

### GARDEN CLUB GLEANINGS

Continued from page 43

as memorials, and a thought might be given to this in times like these.

But with all the practical gardening, don't neglect flowers. Though Food Will Win the War, Gardening Will Win the War of Nerves.

Rommel Stew? That is Mr. W. E. Dittmer's own concoction. He says we will all plant some "African Jumping Beans" as well as other vegetables to help chase Rommel out on his ear.

### MANITOBA NEWS LETTER

Continued from page 40

keenly with the bright golden fruits that garland branches of the Russian sandthorn.

A group of migratory waterfowl seem happy within a spacious fence. Canada geese, lesser snow and blue geese, black and mallard ducks live together. The ducks sometimes enter their hut shelters but the geese remain outside. By squatting on their feet they seem equal to the roughest weather.

"Here is a flower that will grow in spots the sun never reaches", said Paul Aukeman, as he showed a visitor brownallia growing in the dense shade of heavy tree shade in Clark Co., Ohio. "The flowers are a beautiful shade of deep blue, plants are 9 to 10 inches tall and they're produced throughout late summer and early fall."—Capper's Farmer.





## HARDINESS

By  
F. L. Skinner

Hardiness in plants is one of those things that is rather hard to define — there being so many factors that determine the amount of cold a plant can stand without injury.

In some plant families the plant must start the winter with a good supply of moisture at the roots if it is to survive severe cold. In others again, dry conditions in autumn are essential if the plant is to survive the winter.

At one time it was thought that plants from the more northerly latitudes were the likeliest to survive our severe winters; but experiments show that this is not an infallible rule.

Here at Dropmore, just north of latitude 51, two of our hardiest shrubs are Lilacs that were grown from seed collected by E. H. Wilson on the Diamond Mountains of Korea, which lie in latitude 38, or about the same latitude as the southernmost part of Italy.

As a rule plants from near the sea are not hardy with us, but pears grown from seed collected by Wilson at Pukchin, Korea, which is on the sea coast at latitude 40, are hardy and bearing fruit with us, while those grown from seed collected on the mountains at the north end of the main island of Japan have always killed to the snow line and finally were discarded.

Then again it used to be thought that native plants that had a wide range north and south were sure to be hardiest if secured from the northern end of their range. But this is also a rule that seems to have exceptions. One of these exceptions appears to be the *Acer glabrum*, the smooth Maple, which I have collected from such widely separated areas as Boulder, Colorado; Cheyenne, Wyoming; Western Alberta and Fernie and Cranbrook, B. C. None of the Canadian forms of this Maple have so far come through the winter uninjured when above the snow line. Those from Wyoming are quite vigorous shrubs up to 6 feet high, and have never been cut back by winter. The solitary specimen from Boulder, Colorado, has not grown as vigorously as those from Wyoming, but it also has been above snow line during the past two winters and has not so far suffered any injury.

It seems therefore, that no hard and fast rule can be laid down whereby one can definitely say that a plant will be hardy in a given location until it has been through a thorough trial by actually planting specimens secured from various geographical locations in which the plant is native.

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