

NORTH AND SOUTH DAKOTA HORTICULTURE

APRIL, 1939



Mr. and Mrs. R. H. Seydel, Menno, S. D., displaying some of the huge tomatoes they raise in a banker's garden.

The annual meeting of the N. D. Society will be held at Valley City, June 26 and 27

THE VESPER SPARROW

By O. A. Stevens



O. A. Stevens

About April 15 to 20 each spring, we nearly always have a few days of summer-like weather when the bees are busy on the pussy willow blossoms and a few butterflies venture forth. As this period arrives I know I can count on hearing the sweet, tremulous song of the Vesper Sparrow. The date is perhaps as regular as for any of our species, my notes averaging April 18 for the last eight years. The earliest I have are April 12 in 1925 and April 13 in 1931, while one of May 2, 1928 is under suspicion of failure to see them sooner. Except for these three years, I have noted them from April 17 to 23.

This species was one of those discovered with the earlier explorations of North America, first described from New York about 1790 by John Latham, a British ornithologist. Further explorations showed that it occurred all through the country and the Western Vesper Sparrow and Oregon Vesper Sparrow were recognized as its western representatives. The western birds nest as far north as southern Canada and mostly retire to northern Mexico and adjacent California, Arizona and Texas for the winter. The eastern birds move toward the Gulf Coast but seem rarely to leave the United States.

Wilson and Audubon called this bird, Bay-winged Bunting. Grass Finch is another name which has been widely used. It is a good-sized sparrow but of inconspicuous appearance, a pepper and salt or dusty color. The black has the brownish streaks, so common to the sparrow tribe, but they are hardly as pronounced as shown in many of the illustrations. The white under parts are finely streaked, especially along the sides. The most prominent character is the white outer tail feathers which serve to distinguish this species from our other sparrows seen in the fields in the summer. This mark is easily seen as the birds rise from the ground a short distance ahead and fly low as one walks along the roads or through the fields. On the shoulder of the wing is a patch of bright reddish-brown feathers which was the source of the name "bay-winged bunting." The name "Vesper Sparrow" was suggested by John Burroughs, who thought the song especially attractive in late afternoon or evening when other birds were inclined to be quiet. I have never noticed this especially and my memory of the song is chiefly that of its first

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sound on some fine April morning. Most authors admit that the birds sing at all times of the day and Dr. T. S. Roberts has suggested that one of the earliest names might better have been retained.

The vesper sparrow is one of our most common birds of the fields and prairies. Usually we find them on the ground or on weed stalks, fences or other low objects, but often singing

(Continued on page 44)



NEWSLANTS

by
Harry A. Graves



H. A. Graves

Perhaps no ornamental has been the object of as much horticultural interest in the Northern Great Plains the past decade as has **Juniperus scopulorum**. Its many attractive colors and forms and its ability to thrive under conditions not always favorable have made this tree very popular.

J. scopulorum has long been the favorite of C. B. Waldron for specimen planting. It would seem very fitting, then, that E. C. Moran of Medora, who

knows this species very well, should name a particular specimen of "scop" **J. scopulorum** var **Waldronii**. Mr. Moran, who is also one of the vice-presidents of the North Dakota Horticultural Society, has this to say about this specimen:

"Waldronii is a narrow, blue, pyramidal scopulorum about 10 feet high. It is compact in the extreme and its symmetrical proportions will be outstanding even among the best horticultural varieties of junipers. It is located on a wind-swept mountain slope and its companion trees are Ponderosa pine and scrubby 'scops'."

This tree is being propagated by a northern nursery house and plants will be available within the next few years.

The personal qualities of this tree will only contribute to its popularity. The fact that it is to be a living memorial to the man who has had much to do with tree planting in North Dakota for almost a half century will make the tree doubly interesting to all who know him.

Ted Weir, horticulturist at the North Central School of Agriculture, Grand Rapids, Minnesota, writes regarding **Populus generosa** (Poplar). This species was produced by Dr. Henry in 1912 at Kew Gardens by using **Populus angulata** as the pistillate parent and **P. trichocarpa** furnishing the pollen. Only four seedlings resulted from the cross. According to Bailey this tree shows much promise. It is a very vigorous growing tree, but according to Mr. Weir is subject to a cancer to which many of the European species are susceptible. However, specimens of this tree have made almost unbelievable growth at Grand Rapids and may be very worth while wherever sufficient moisture can be found to support their growth.

A great amount of attention and space have been given to the farm garden in the past. While too much stress cannot be laid on this portion of the farm income, perhaps we have overlooked

the good gardens possible in our cities and towns on available vacant lots and similar plots of ground. Following is the rather amazing list of products stored in the basement of G. C. Chandler and family of Minot on October 1, 1938: 115 cabbage, 14 bu. potatoes, 17 large squash, 1 bu. citron, 1 bu. onions, 1½ bu. green and ripe tomatoes, 86 qts. pickles, 244 qts. other vegetables, 45 lbs. dry beans, 6 bu. carrots, 1 bu. beets, and 5 gal. saurkraut. This was all raised in a garden in east Minot by Mr. and Mrs. Chandler and their four children. These stored products were, of course, raised in addition to the amount consumed direct from the garden by this family of six people.

Michigan's red seedling potato, formerly under the number 401-23, has been named "Pontiac." It was named for Chief Pontiac, head of the Ottawa tribe that once roamed the Great Lakes region. Pontiac was produced by crossing the Bliss Triumph early and red skinned x Katahdin, late white. This variety has given high yields in Michigan on Muck soils but so far in trials at the North Dakota Agricultural Experiment Station appears late.

E. M. Morgan, of Yorkton, Saskatchewan, writes that Zephyr muskmelon last year was classed by many in the Yorkton vicinity as the best they had ever eaten. Mr. Morgan secured a very high yield, also. It would appear from the many reports received that Zephyr is early enough to produce high yields of fair to excellent fruits well up into the prairie provinces of Canada. Gardeners should bear in mind that Zephyr does not ship too well and is desirable rather as a home melon.

By taping a portion of a fruit tree shoot near the growing tip, when it first starts to put out leaves in the spring, you can make it produce root-forming tissue. You simply remove the tape in the fall, make a cut in the area which has been taped, and plant the cutting. Roots should form promptly. This new method makes it possible to grow fruit trees on their own roots.—Dr. Firman E. Bear, in Country Home.

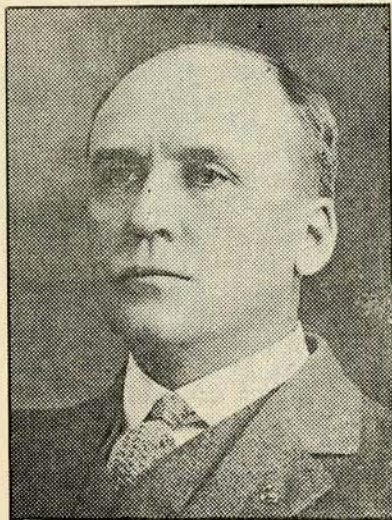
N. O. MONSERUD

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SOME DELTAS OF THE DAKOTAS

H. L. Hopkins



H. L. Hopkins

A delta is formed by the gradual accumulation of detritus or load carried by a running stream and deposited in still water at its mouth. There are many very notable delta formations in North America. Among those most familiar are the deltas of the Mississippi, Colorado and Columbia rivers.

A tolerably close observer can locate many small deltas

about the lips of natural basins where deposits were made by glacial waters.

South Dakota combined with Minnesota, have two deltas which have wrought rather important changes in drainage conditions with which they are connected. Reference is made to the deltas formed by the Whetstone river, in Grant county, and the Little Minnesota River, in Roberts county, South Dakota.

The Whetstone enters the Minnesota river at the foot, or southern end of Big Stone Lake, Between Big Stone City, South Dakota and Ortonville, Minn. It has built up a delta that has dammed the channel of the Minnesota and formed Big Stone Lake in a part of the old river bed.

It is believed that formerly the whole watershed of Lake Traverse formed the head waters of the old Minnesota river. The Mustinka river, entering Lake Traverse, towards its northern end, from the Minnesota side; Jim Creek, now a puny stream, occupying a mammoth old glacial water eroded valley; believed by some writers, including the writer, to have been the original channel of the Sheyenne river, of North Dakota; enters near the central part of the lake, from the South Dakota side; and the Little Minnesota river, entering the northern end of Big Stone Lake, at Traverse Gap, from the South Dakota side, were all formerly feeders and tributaries, of the ancient Minnesota river.

The Little Minnesota river has built a delta, at Traverse Gap, shutting off the Lake Traverse drainage basin and forcing those waters to the north by way of the Red river.

This delta not only cut off a very considerable

drainage area from the Minnesota river but it also shifted the continental divide, automatically, around the southern contour of the Traverse drainage basin from its northern contour.

The Mustinka river is now at work on a new delta that carries about half way across Traverse Lake. If this operation is not interfered with it will eventually throw a new dam across Traverse and force its waters again through Traverse Gap to the Minnesota river. This would again automatically shift the divide.

Lake Dakota and Other Deltas

Another delta of more than passing interest and importance was formed just at about the line between the twin Dakota states at the extreme northern lip of old Lake Dakota in the James valley. Delta materials are found here in vast quantities all about Ludden, North Dakota and Hecla and Houghton, South Dakota.

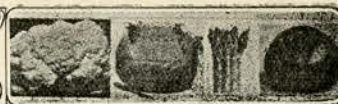
The surface soils are smeared with these delta sands and silts, and the sand hills between Hecla and Britton are dunes formed by action of prevailing winds, from the finer of these materials. Sand Lake, an enlargement of the James river channel, a short distance below Houghton, gets both name and character from these old delta materials.

This delta was created when the huge glacial waters from the upper James contacted the still water of old lake Dakota.

The extremely sandy character of soils about old glacial Lake Sargent, North Dakota, are ample evidence of deltaic origin. The same is true of the soils about the northeastern lip of old Lake Dakota, where the flood from glacial lake Sargent entered. The sandy and silty soils about Tulare, in Spink county, come from deltaic materials deposited at the brim of old Lake Dakota, by the Turtle. Sand Creek, entering the James river near Forestburg, Sanborn county, heading near Wessington, in the Ree Hills, among the highest elevations of the great Missouri Coteau, has also transported large quantities of delta materials and disgorged them at the rim of old Lake Dakota. The name of the stream eloquently tells its story. From these materials large dunes have formed, near state highway number 37, between Forestburg and Woonsocket.

In fact, it is safe to say that evidences of transportation and deposition can be found, in the sandy character of soils, where every water course, of any consequence, entered the big basin.

A considerable accumulation of deltaic materials are found where the glacial and subsequent flood waters discharged from Lake Albert into Lake Poinsett, in Hamlin county. These materials have somewhat shallowed the water over a small area in the bed of Poinsett.



PRESIDENT'S CORNER

by
H. E. Beebe

Reflections of a Rolling Stone



H. E. Beebe

A recent article by Jack Bailey, editor of the Aberdeen American, telling of the beauties of the Southern Gardens, inspired me to take the "Well known smaller car," and the wife and other luggage and after making my peace with Secy. Simmons, left for the Twin Cities, with the temperature averaging that day 15 degrees below. The next noon we headed southward sleeping at Ames, Iowa, where I would have liked to have seen some

of the other Horticulture experts, but there was a foot of snow on the ground, and ten below. As we drove south however the snow grew thinner and the temperature higher and around Sedalia, Mo., there was no further snow, and a few signs of a green tint in the grass were seen.

The second morning when we got out on the street in Springfield, Mo., the air was soft and balmy, the overcoat put away and not brought out again until arriving in Omaha, last Saturday on the return.

At Little Rock, Ark., were seen the first green lawns and that day quite a few yellow daffodils appeared in the yards of many farms.

We left St. Paul, on Thursday noon and Saturday night in the City Park at Ruston, La., narcissus in large clusters looking like white poppies under the electric light greeted us. The store keepers in this state, instead of saying good-by, would say, "Come back and see us." Over in Texas, it was, "Hurry back," this latter probably coming from the Mexican, "Hasta Luega" or vice versa.

Any way it was a very pleasant parting.

From Ruston down to New Orleans, there is a great deal of marsh country and we often drove for 15 miles without seeing any small towns or groups of dwelling, however there were wild flowers along the road, and we picked up quite a few pine cones, both here and down in Mexico.

The ride from Laredo, Texas, down to Monterrey, Mexico, was through a desert but the small yellow buttoned Huizache was every where and on the return trip a week later practically all of the trees and bushes seemed to be in blossom. There was one patch about two feet across of solid red cactus about six inches high. As usual there was not the time to find out if this was like the low pink blossom, Dakota Cactus, which now and then added to the excitement of

going in swimming.

When crossing the ferry from Port Allen to Baton Rouge, we were held up two hours by the evening traffic, and when leaving New Orleans to cross the Mississippi again, we thought of the benefits that Huey Long had given Louisiana in the bridge there, and the many cement roads and other bridges.

In the Teche country near Saint Martinsville, there was some complaint, probably justified of Long's Hitler-like attitude, but aside from this I believe that he advanced Louisiana a good seven years farther than it would have been if he had not been in the saddle.

In the next issue will be a little description of that Evangeline country, a most pleasant memory.

Gov. Bushfield Proclaims Arbor Day

Our Governor has set April 17th, for planting trees, stating, "the years of drought have destroyed man's effort to beautify his home, by additional plantings; yet today the public interest is centered in the thought of planting trees, as much as in the days of the Pioneer."

The members of the South Dakota Horticulture Society say, "Amen" to that. If each citizen would plant two trees each year, our towns would be transformed, providing of course that care is given to keep grass away and water on the roots of the trees. In general it is perhaps much better to plant a few trees and care for them, than to plant many and pay no further attention to their welfare.

There seems to be an increasing tendency on account of adverse weather to plant seedlings about 18 inches high.

E. H. Everson Secy. of Agriculture, has a list of eight broad leaf trees and two tested evergreens.

Any citizen of the state can order these from Mr. Everson at Pierre, at 75c, to \$1.25 per hundred packed and postage prepaid.

Only God Can Make A Tree

In the past in South Dakota, a great many people have planted trees and shrubbery of various varieties which flourished in the states of their former residences, without much attention.

The situation in South Dakota however, reminds one of the conversation between the Colored Preacher and Rastus.

Parson: "Rastus, that's a fine garden you have there."

Rastus: "Yah suh, Pahson."

Parson: "You must thank the Almighty for that."

Rastus: "Pahson, did you ebbah see dis piece of ground when de Almighty had it all to Hisself?"

(Continued in May issue)

FRUIT AND VEGETABLE NOTES

by

F. X. Wallner



F. X. Wallner

Seed of a perennial bush bearing bright yellow flowers, that is hardy and very resistant to cold and drought, is the way the plant from Peru is described. It is sent to any one for a 3 cent stamp by the Pan-American Society of Tropical Research, New Orleans, La. The seeds are given with best wishes of the people of Peru, with the hope of continued friendly feeling. Reminds me of the International Peace Garden on the Canadian-

North Dakota border. You may also receive other literature and a copy of "EPLORATION AND SCIENTIFIC RESEARCH", wherein hair raising events are interestingly published. Head hunters, Tropical Nights, Vampire Bats, Explorers Log, Richard Marsh, explorer, Paradox of Montevideo, Pot Au Feu, are a few of the most interesting titles in the Fall of 1938 issue. During January and February most of the tomatoes come from Mexico, Cuba and the Canary Islands. The Mexican growers got caught by the freeze that went down the west coast, and the Canary Island growers took a big loss on a ship load of 25 car loads, on the New York market that were of poor quality and were refused, so were sold for less than the duty of 3 cents per pound, besides a \$30,000 freight bill. On top of all this loss is the boxes and packing. A big shipment from Cuba, of more than 41,000 boxes, was also of poor grade and sold for \$1, or less a box, but later arrivals brought \$1.70 to \$2.70 a box of 48 lbs. Our legislature passed the Chain Store bill but a similar bill in some other states has been held invalid. The Court held the bill was "unreasonable, arbitrary and capricious" and without any "natural, reasonable or just relation to the purpose of the act". Nevertheless when the three largest food chains buy most all their produce outside the state, they are not friends of producers or farmers of this state. 75 car loads of apples were shipped to Germany from British Columbia in January and more to follow. These are grown in the Okanagan Valley, where the Associated Seed Growers of New Haven, Conn., will this year plant 230 acres of beans for seed. This is far north to plant beans for seed, but if successful, 1,000 acres will be planted in 1940 for seed for the American growers. This is interesting as I am using and have other growers, try these seeds the past two years. H. M. Hansen, of Grafton, N. D., was crowned potato king for

the second year. This year he took first prize in all four classes, Ohios, cobbles, triumphs and other variety. The Bliss Triumph won the sweepstakes over all varieties, as it did at the State show at Brookings, S. D., last fall. Lower Michigan hard and soft maple trees were being tapped for the spring flow of sap and a good demand was expected for the maple sugar and syrup because many of the New England maple trees were destroyed in the 1938 hurricane. Michigan State Horticultural Society and other fruit organizations endorsed a bill that has passed the state senate to spend \$250,000 to advertise the state. \$50,000 of this is to advertise the states horticultural products, but the different producers must match the amount the state puts up. The first week in March, 11838 car loads of potatoes were shipped from the northern county of Maine and it is the largest amount ever shipped in six days. In the February 15th issue of the MARKET GROWER'S JOURNAL is a very good review of a new vegetable book, "The Vegetable Growing Business," in fact it tempted me to write in and ask for the book for our library, and so today it arrived and I will try to give the high lights in the next issue, after I have time to read it. R. A. Watts, Dean Emeritus of the

(Continued on page 48)

THE PIONEER SEED HOUSE

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MANITOBA NEWS LETTER

by
W. R. Leslie



W. R. Leslie

The summer of 1938 was the second season root-inducing acids were used on greenwood cuttings at the Modern Experimental Station. To date no impressive benefits have shown up by treating dormant wood cuttings. Results may change with employment of different types of hormone acids.

In 1937 a commercial product was used in liquid form. This past year operations took place in cooperation with the National Research Laboratory, Ottawa. Acids were received in powdered form and mixed with local bentonite. The cuttings were dipped in the finely powdered mixture and at once inserted in the sand bed on benches in the small propagation glass house.

Varieties of common lilac varied considerably in their rooting. A mixture of 1 part Indolyl Acetic acid to 1,000 parts of Bentonite gave advantage in rooting in some varieties, such as Paul Thirion and Bertha Damman. On the other hand, Rochambeau and Leon Gambetta were little influenced. The last named failed to give one rooted cutting out of 60 placed. Paul Thirion produced roots on 33 cuttings. It is of interest to note that cuttings taken from potted plants forced in the greenhouse have rooted 100 per cent without hormone treatment in a greenhouse propagating frame.

In miscellaneous trees and shrubs a feature was the remarkable vigour of root growth in those subjects which ordinarily root fairly readily. Examples are Cranberrybush, Red Elder, Hydrangea, Dogwood, and Shubby Cinquefoil.

Cytisus nigricans treated gave 30 per cent rooted against none for untreated. Other subjects which rooted only under treatment include Amur Cherry, Rose Daphne, Sour Cherry, Rouen Lilac, Arnold Mountain-ash, Swedish Basswood, Amur Maple, Hopa Crab, Spiney Caragana, Double-flowering Plum, Willmott Rose, Cistena Cherry, Amury Honeysuckle, Swanee and Red-wine Lilacs.

Elms developed well from greenwood cuttings and were helped by treatment.

Amur tamarix did poorly as greenwood cuttings, whereas it grows as well as most willows from dormant wood cuttings.

Russian-olive was the one instance where untreated greenwood cuttings rooted better than the treated, the ratio being 90 to 25.

The use of plant hormone acids on greenwood

cuttings is for the plantsman who has a greenhouse or well built propagating frame which can be easily manipulated as to temperature, light intensity, and humidity. The cuttings require constant attention. The casual amateur who can give only part time care to his cutting bed is well advised to forgo venturing in this field. The skilled commercial grower can profit from the favourable use of root-inducing acids in early June.

There are approximately fifty farmers across the Canadian prairies who cooperate with the Morden Station in testing new fruit varieties, and by sending in helpful reports. One of these has been surprisingly successful with large apples, and his latest report is to hand. He is Mr. Frank Boskill, Rutland, Saskatchewan. His farm is far West of Battleford, close to the Alberta boundary.

He mentions that sunscald was bad in the spring of 1936, so he made sunshades of brush for use on 90 trees which grow on a southern exposure. He states that no sunscald injury has occurred in the orchard sloping somewhat to the north-east.

Mr. Boskill rates Hyslop as about three-quarters hardy. Some of its fruits measured almost two inches across. Dolgo and Dauphin, although not large, are popular because of their high colour. Rescue is hardy. Heyer No. 12 is also hardy. Of the Ottawa crab apples, the following are very hardy, Robin, Jewel, Osman, and Columbia. Silvia is slightly less than fully hardy but it is productive.

In large apples the most dependable seem to be some of his own seedlings, and Mortof, Moris, Pine Grove Red, Hibernial, Wealthy, Repka Kis-laga, Haralson, and Morden 342. Toba apple-crab is classed as very promising. Morden introductions considered too tender are Godfrey, Manitoba Spy and Manan. Mamred and Mantet have suffered some winter injury.

Plums bearing well last year include Sapa, Opata, Assiniboine, Mammoth, Valley River, Wilson River, Tom Thumb and Waneta. Light crops came from Radisson, Pembina, and Stevens.

Mr. Boskill lives deep into the northwest prairies, being not far from Wainwright National Park. In 1938 from his orchard, composed in large part of young trees, were harvested over 6,000 pounds of good fruit. Such achievement is encouragement to prairie home-makers. He has added zest in his work due to developing new fruits from seed. It is from the growing of fruit seedlings that new varieties still better suited to northern prairie conditions may be expected.

In the series of Radio talks given, Mr. Ross stressed the following five points in planning a new shelterbelt.

(Continued on page 48)

SECRETARY'S CORNER

W. A. Simmons



W. A. Simmons

In the February issue of the *WISCONSIN HORTICULTURE*, John A. Callenbach relates the results of experiments that seem to prove that dust, on the leaves and fruit of apple trees has a very adverse effect on the efforts of growers to control codling moths. The dust prevents the spray from settling properly on the fruit and settles on the spray already present and forms a harmless bridge, that the worms can safely cross. This dust can

come from a dirt or gravelled road near the orchard, or from cultivated soil in the orchard itself which a high wind may raise and cause to be deposited on the trees.

In a recent letter Mr. S. B. Hartshorn, of Stroner, Wyo., gives a little of his experience in growing fruit. "My neighbors told me it could not be done, but as I love to work with fruit, I thought I would try it on a small scale, so I planted out a few trees, putting them on a north slope with a row of plum trees and a row of sand-cherries on the south to catch the snow, and for protection from wind. Then I fenced it rabbit tight. It is very dry here and no irrigation, so I dug large shallow holes on the upper side of each tree to catch the rainfall. These holes are large enough to cultivate through. I fertilize every two years and use my spring tooth harrow to work it in. Had a number of my trees sunscalded after that hard winter two years ago, so took boards and made boxes around them and filled up with dirt above the scald to keep hot sun and air away, so they could heal over and not crack. To make a long story short, I have gathered a good many bushels of plums and crabapples, also some apples, as my apples have just begun to bear. Grapes do well here, especially the Beta and Compass cherry, Opata, in fact all the sand-cherry hybrids do fine, also crabapples. I have found to my own satisfaction and pleasure that we can raise fruit in Northern Wyoming and if I have written anything to encourage others, well and good."

According to Mass. *HORTICULTURE*, experiments conducted by Dr. R. H. Nelson, of the Bureau of Entomology and Plant Quarantine, Washington, D. C., has shown that a tartar emetic spray for the control of thrips, in Glads is cheaper equally effective and less injurious than the Paris Green spray. The new spray did not burn the foliage, and corms produced from Glads so sprayed, weighed a third more than those sprayed with Paris green. The formula is for 100 gallons,

enough to spray 1-10 of an acre, Tartar Emetic 4 lbs., brown sugar 16 lbs. That for 3 gallons is 2 ounces or $4\frac{1}{2}$ teaspoonfuls of Tartar Emetic, and 8 ounces or one and two thirds cups of brown sugar. The recommendation is to spray first when the foliage is 6 inches high and to repeat weekly for 6 weeks. One of the good things our legislature did at its recent session was to reduce from 200 to 170, the number of live trees per acre to permit a farmer to take advantage of the \$5 per acre tree bounty law. In a recent letter, Mrs. R. L. Keating, of Clark writes: "People in this state used to always have a great deal of faith in next year, but now they don't seem to have any faith in anything. They don't plan or think about next year or next month, next week; in fact, not even the following day."

In a letter to Dr. Yeager, we bragged some of the good behavior of our weather bureau man this winter, stating that 18 below zero was the coldest it had been here. In a letter just received the Doctor says that sounds cold to him, as it had not quite got down to zero at East Lansing, though they had been the recipients of lots of snow. March 19th. The first robin of the season was observed this morning, taking over ownership of the property he relinquished last fall. While unlike our President on his migrations, the robin sends us no post cards, he evidently does not forget our street address. Incidentally, our President beat the robin north, by several days, proving that the auto, capably driven, can still hold its own with the flyers.

THE VESPER SPARROW

(Continued from page 38)

from trees which stand near by. They may be found in quite wooded country if grassy openings are present. The nests are built on the ground. Dr. Roberts states that two broods are reared during the summer. The eggs are about three-fourths of an inch long, irregularly spotted with pinkish or brown shades. The birds come more or less into the college gardens where I have my traps. One year a nest was found under the edge of a raspberry bush. It had one egg of usual size and two of only one-half as long, thus creating some mystery about their origin (described in *Wilson Bulletin* for December 1936).

This species is considered one of our most useful native sparrows. A tabulation of food eaten by 130 individuals, reported by the U. S. Biological Survey, showed 31 percent animal matter, including chiefly grasshoppers and beetles, and 69 percent vegetable matter, chiefly the seeds of ragweeds, sunflowers and other weeds.

The first test of a really great man is his humility.—John Ruskin.



BOOK REVIEW

by

Mrs. F. Briley

Hand Book of Fertilizers, their source, make up, effects and use. By A. F. Gustafson, Phd., Professor of Soil Technology, Cornell University. Revised and reset January 1939. Illustrated. Orange Judd Publishing Co. Inc., 15 E. 26th St., New York.

To read Handbook of Fertilizers after having read *The World Was My Garden*, by Fairchild, is like eating your meat, potatoes and bread after eating your cake. However, after reading Handbook of Fertilizers and realizing the value and the wealth of the material that it contains, we know that the reading matter of a Horticulturist must be composed of both bread and cake. In the preface, the author says: "In no phase of agriculture is there greater need for accurate information than concerning fertilizers. In this book special stress is laid on the effects of fertilizers on soils and crops in the hope of aiding the user in making a wise choice for his individual soil and cropping conditions." Fourteen chemical elements are needed for the growth of plants. Each element has its own particular function in, and effect on, plant growth; the most important ones being nitrogen, phosphorus and potassium. The author treats each of these elements in an understandable and interesting way. The chemical elements contained in the various by-products are given, such as dried blood, meat meal, tankage, hoofs, hair, fish scrap. We are reminded of the old saying that every part of the pig is utilized but the squeal. Last year it is estimated that 7,300,000 tons of fertilizer were used in the United States. This book is especially valuable for the amateur.

Cacti For The Amateur, by Scott E. Haselton, Editor of the *Cactus & Succulent Journal* of the Cactus & Succulent Society of America. Drawings by Margaret Kincher, T. M. Bock and Grace Haselton, illustrated (110 colored plates). 142 pages, Pasadena, California Abbey Press. Price \$1.00. A few years ago word went around, among lovers of flowers that cacti were fashionable. They were immediately purchased promiscuously, planted with the roots as they came, stood in the sun, while the fond owner sat back to await results. The results often necessitated the burial of the skeletons and, saddest of all, the purchaser's hobby. With the possession of this little book, cacti can be raised and enjoyed in the raising. The author tells how to build a collection, how to start, how to buy from dealers and discusses soil and food, potting and pest control. Much space is given to grafting and some unique work in trick grafting. The illustrations of arrangements throughout the book are of real interest. The question, "When is a cactus not a

cactus", is answered by giving six characteristics that a plant must have in order to be one. Cacti are all sizes, ranging from the Giant Sajauro, weighing tons and towering 50 feet high, with branches raised heavenward, to the tiny button cactus that is so insignificant as to be hard to find if it was not for its bright flower or scarlet fruit. Some grow in tropical trees, while others seem to be growing from solid rock in desert regions. The contrast in the life span of cacti is also interesting, for it ranges from a few years to 2½ centuries. Few other plants will survive the hardships which are part of the life cycle of cacti. Natives of Mexico have found many uses for cactus, which have been recorded in a booklet of 60 recipes for making candies, jellies, jams, ice cream, salads, pickles, etc. As the author says, "It would seem like eating the family pet to slice our favorite cactus for a salad". The flower of any cactus is the answer to the question "Why grow cacti". The author puts up some splendid arguments in favor of cacti for a hobby versus stamps. To the inexperienced, the word cactus presents a picture of terrible spines, but in this book the reader sees them as a thing of beauty through the eyes of a man who loves them. "Cacti for the Amateur" should find a place on the gardeners book shelf.

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GEO. E. MILLEN

SHEYENNE, N. D.

HORTICULTURAL TRAVELOGUE

by
A. L. Truax



A. L. Truax

During the course of our three-year wanderings which have now taken us into every state in the union, we spent the past winter in Florida. Our impressions were that the winter climate is delightful, the towns and cities, for the most part progressive and beautiful, but the natural scenery monotonous and unimpressive, consisting mostly of alternating sand and swamp, saw grass and palmettoes, scrub pine and live oak, the latter bedecked and at times smothered by the ubiquitous and depressing Spanish moss. Our horticultural friends will of course be interested in the Florida fruits and flowers. Florida oranges are unsurpassed. Those who know only the rather sour and comparatively dry navel oranges of the southwest will find a new surprise for their palates in the fifteen or more varieties that are grown in Florida, each with its distinctive flavor and ranging in season from early to late. Distance and consequent shipping costs, however, seem to prevent their appearance on Dakota markets. I might also speak of the varied vegetable products for which Florida is famous, and which in winter time go in trainloads to northern markets. But as I am a "flower man" my impressions in this article will be mostly of the flora that have come to my eyes during the past winter and spring, in the south. Contrary to the general opinion, Florida does not abound in native flowers as does California or even the deserts of Arizona and New Mexico. Most of the Florida wild flowers are shy inhabitants of the often impenetrable swamps and can be reached only with hip-boots or a canoe, and perhaps that is why I saw so few. The sandy barrens might tell a different story in spring, but I was not there to see them. Among the most distinctive that I saw as early as January in the Florida swamps was the Atamasco Lily (*Zephyranthes atamasco*), with pure white, lily-like blooms, sometimes 3 to 4 inches in length. In the same habitat, but blooming a little later, was found the Southern Swamp Lily (*Lilium carolinianum*), with stems 2 to 4 feet high and bearing flowers three inches in diameter, delicately fragrant, of a brilliant scarlet-orange, with a paler, almost white throat. The Water Hyacinth is universal in swamps and streams and is called the "million dollar weed" because it grows in such profusion as to obstruct navigation. It is not, however, native to Florida, having been imported

from South America. In public parks and in gardens great reliance is placed for show of color in the commoner annuals familiar in the north, such as petunias, phlox, verbenas, etc., as they bloom all winter in this mild clime. But one also sees great beds of *Amaryllis* growing in the open air, with wonderful variety of shape and coloration, and in February the exquisite and rare Amazon Lily (*Eucharis amazonica*), which is a hot house plant in the north, exhales its delightful fragrance with snowy blooms in pots and boxes or even in the open ground. Blooming vines are everywhere, among which the most prominent is the Flame vine (*Bignonia venusta*), a near relative of our Trumpet vine of the north. It covers porches and fences in January with vivid sheets of orange-scarlet. It would be fine for the north but unfortunately will not bear the touch of frost. Later, in February, comes the yellow Chinese Jasmine, beautiful with its sheets of gold, but unfortunately lacking the fragrance which we associate with the Jasmine. Why the fragrant ones such as *J. officinalis* or *J. grandiflorum* are not more grown I do not know. Oleander, Gardenias and Camellias grow in the open air, and tender varieties of *Hybiscus* are used as blooming hedges. But the flowering shrub par excellence of the south is the azalea. We visited the Cypress Gardens near Winter Haven in February when the Azaleas were in bloom. It was a wonderful sight. Besides this, one may take a boat ride here, through the cypress bordered lagoons, with flower vistas according to season, at every turn. If you are ever in Florida, do not miss a visit to the Cypress Gardens. We left Florida February 25th, after a trip to Cuba, which would be too long to tell about and journeyed along the Gulf coast through Alabama and Mississippi to New Orleans.

Change my address back to Crosby, N. D. We do not like Oregon winter weather. It is damp, chilly, foggy, misty, rainy, and we are always cold. We had rather be beside a coal fire in the Dakotas.—A. L. Truax.

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SNOW BOUND

by
W. E. H. Porter

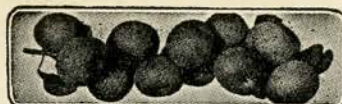


W. E. H. Porter

As the days lengthen and brighten and snow blanket increasingly dazzles, us garden enthusiasts are the lucky recipients of more literature from the realm of "Cloud Cuckoo Land." Oh, well, it certainly makes pleasanter and more elevating reading than a perusal of the latest atrocities of Generalissimo (did I say Christian) Franco in Spain; an infamy continuous, because condoned openly or covertly by the powers that be. Thankful should we be in this blessed republic that even in such a hotly contested campaign as that between Roosevelt and Landon, the badly defeated opposition never had the slightest conception of retrieving their position with an armed rebellion and our neighbors, both north and south, are too well bred to interfere in our domestic affairs. To revert: after bravely scratching the surface with Rex Pearce viz. 38 packets of seeds and 25 plants that I just could not afford to do without, am pleased to note that Gurney of Yankton again lists those find hybrid elms, American White X Chinese, about the easiest and quickest growing tree for the prairie. It is not leggy as the White elm sometimes is, but symmetrical, with a good central stem and branching close to the ground, with grace of the Wych elm and without the latter's objectionable forking habit and apparently not so beloved of rabbits as Chinese elm. I only wish that I had room for more of these splendid trees. Looking through other lists I note that our common (here) *Anemone multifida* (midsummer) with wine red or white flowers, is listed as a rarity at 50 cents per plant. Our virgin prairie knolls have many of them; also my spreading *Geranium Wallichianum*, a shoot of which was obtained not quite correctly years ago at Morden, a debt by the way I am anxious to repay in kind. It has large purple flowers, a mat like rock plant, developing a good root run and is about the only geranium that resents not disturbance, and can we do without the new and only pink delphinium, "Pink Sensation," sold by the Burnett Co., New York? And how intriguing are the new dwarf dahlias that Burgess Company offers, bulbs that can be set indoors to flower in a few weeks and later plant out in the garden for all summer flowering. But when it comes to the supremely beautiful blue hydrangea of Massachusetts, with our soil not even sub-acid and too short season, I harden my heart. January 30. Tuned in on

Hitler's speech this afternoon; so did about 15 Hungarian partridges that squatted outside our kitchen window and cocked their heads in a most amusing fashion. Suddenly they all vanished; perhaps they heard of the bombing of the holy city of Guernica, in Spain. We, of course, did not understand a word of it. February 2nd. A blizzard, temperature around 10 below zero, clearing and colder in the afternoon. Indoors a burst of spring commences, blue hyacinth in bloom and also cream, breaking out. These bulbs were set September 27th. Also a crocus, color of our so-called prairie crocus (*Anemone patens*), bulbs set October 10th, and perhaps best of all, two daffodils, a *Narcissus barrie*, hybrid of well known fragrant Pheasant's eye X. N. *incomparabilis*, perianth 2½ inches in diameter. February 3rd. A dwarf N. croesus, perianth primrose, corono orange, in bloom, both are fragrant and supremely lovely. These bulbs were set on October 19th. Have same and other daffodils in garden, hardiness to be proved. February 8th, 35 below zero at 8:35 a. m. February 10th. A howling blizzard at 18 below. February 15th, 34 below at 9 a. m. Between 1st and last dates was no overpowering heat wave of zero or above, but unlike man's inhumanity to man, Nature even in her severest mood, relents. February 17th, 42 above zero in shade at 12:30 p. m. Listening to a radio broadcast on February 16th from Winnipeg I hear that Starlings are now quite common in Manitoba; they are generally regarded as a pest but surely not as bad as the English sparrow. R. M. Lockley says this about the Starling: "plumage metallic green grey spangled. Lays 5 to 8 eggs, pale blue in clutch; incubation 2 weeks and 3 weeks later, young can fly. Found over whole of Europe with sub-species across Asia; it imitates songs and call notes of other birds; diet mainly insectivorous, including ticks off sheep, but also fond of cherries and small fruits, berries, etc." Note in current issue of *Flower Grower*, a two-page add of Richards Gardens, Plainswell, Mich., listing perennial seedlings, average price 40 to 55 cents, postpaid per dozen, only you must take a dozen of each. An amazing offer, which includes such things as pink aubretias, crimson star columbine, peach leaved campanula, etc. Also received C. W. Woods' 1939 offerings; he has done so much to establish permanent beauty in northern gardens and no one can tell you more about such, in our magazines. His premise, "Today's best should not be tomorrow's best, but tomorrow's encouragement," we can well make this our motto.

"How many lovely things there are. The glowing, beaming, friendly star, the Garden gate that stands ajar."—Wilhelmina Stitch, in her song of Lovely Things.



NEWS NOTES

by
C. B. Waldron



C. B. Waldron

Looking out upon a landscape that lacks only igloos and pen-guins to complete the Arctic illusion, we may not be conscious of the fact that sprig seed sowing is just around the corner, if not directly in front of us.

Aside from the things that are always sown out of doors after spring begins, there are more seeds sown in March than in any other month and in some sections than in all of the other months together.

It takes from six to eight weeks to grow most vegetable and ornamental plants from seed to transplanting size, and as many of these are rather hardy and can be set out early in May, we must seed in March to take advantage of the favorable growing conditions of May and early June.

With the perfection of the electric hotbed a few years back, we imagined that by the year of grace, 1939, most garden minded families would find themselves possessed of this highly efficient equipment. It costs a few dollars, of course, which may explain why so few people have made the venture. This leaves the most of us with the choice we always had: i. e., the old style method, or such facilities for plant growing as the kitchen or other rooms may afford. Any Experiment Station will send a circular giving directions for hot-bed construction. Most of our readers have doubtless made shallow boxes, filled them with earth and sowed the seed so that the process is entirely familiar. To those without this experience, bulletins may be had of your Experiment Station for the asking.

It is to be hoped that we were all far-sighted enough last fall to secure a quantity of good garden soil, mix it with compost and a little sand, and put it away under cover for this spring's operations. If, instead, we were like the five foolish virgins, we can perhaps make satisfactory negotiations with some greenhouse man. Boxes or pots of seed grown in the house will need all of the light available. The day and night temperatures are likely to be about right; i. e., 70 and 60 degrees respectively.

With a catalog of ornamental plants at hand, one can readily make his selection of the plants that must be sown in March, like the pansy, snap-dragon, scarlet sage, late petunias, asters, etc., and those that may be sown a little later or even out of doors.

We will have to begin now to get our pansy plants just at the beginning of the blooming stage when we set them out early in May. In rich soil with plenty of water they will bloom profusely through June, fall off in midsummer, and come back again in the fall if watered generously and given a little nitrate of soda or Vigoro. Some shade in the afternoon is doubtless good for pansies, but is not so important as many people imagine, and is certainly secondary to having a rich, moist soil.

As the season advances, and the days become warmer, the boxes of plants should be placed outside during the day. We used to make a cold frame on the south side of the house, using the storm windows that could be spared and the plants were kept out there continuously after about the middle of April, laying an old mattress over the glass at night. We have seen it 26 degrees warmer under the glass than outside when the sun is shining, which means that the glass should be lifted on bright days.

Now that most of us feel that we can't indulge ourselves in expensive luxuries we will have to seek our pleasures in things we can afford, and the best of these, measured by any standard, is the home flower garden.

FRUIT AND VEGETABLE NOTES

(Continued from page 42)

School of Agriculture of Pennsylvania State, and his son, a farmer, have joined in publishing this 450 page book. It is entirely different from Dean Watts "Vegetable Gardening", published in 1912 and 1922. A letter from Peter Daman of Manitoba, Canada, tells about the wonderful trip through the states with Horticulturists and especially enjoying the stop at Sioux Falls with its fine homes and well kept yards, but in particular, the beautiful parks. The tomato tests, this year, will consist of about 14 varieties, of which 9 are of Dr. Yeager's and the others are later, standard varieties.

MANITOBA NEWS LETTER

(Continued from page 43)

1. Plant only on well summer fallowed land.
2. Use only drought-resistant varieties.
3. Keep fences far enough back so that a 15 or 18 foot strip of soil can be permanently cultivated on both sides of the belt.
4. Where a belt of more than four or five rows is to be planted a snow-break of one row of Caragana should be arranged for, set back 75 to 100 feet from the main belt.
5. Take every advantage of the wetter cycles to get shelterbelts established.