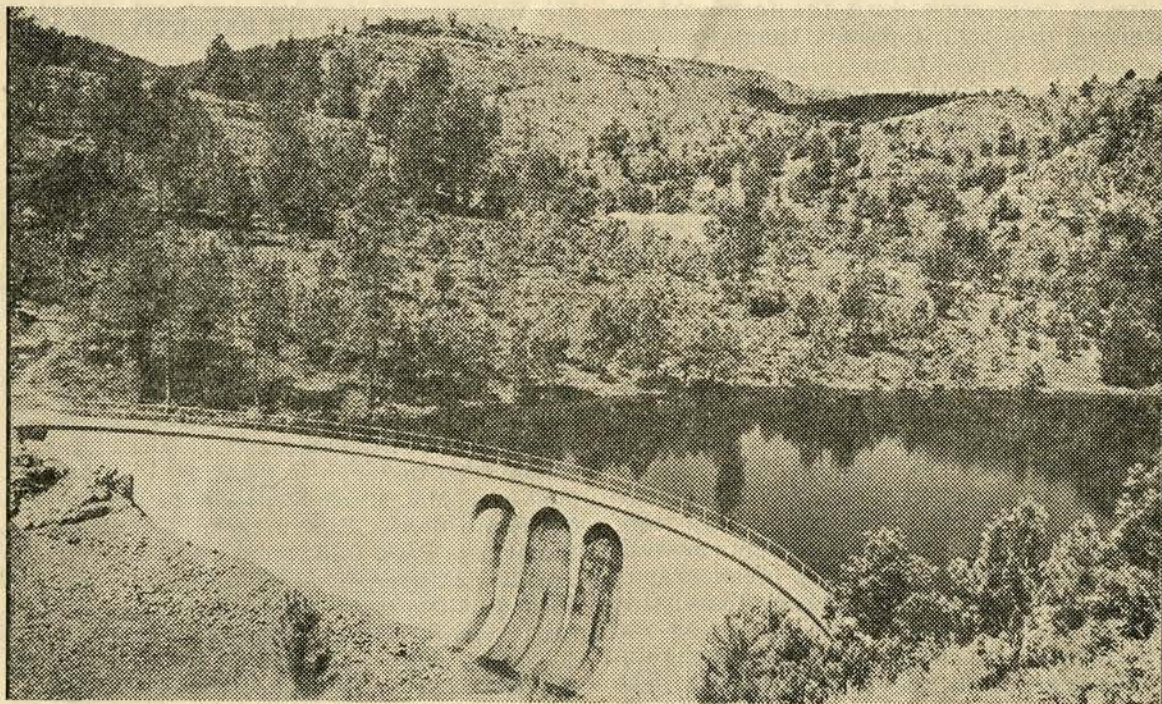


NORTH AND SOUTH DAKOTA HORTICULTURE

SEPTEMBER, 1938

South Dakota State
College Library



Victoria, one of the new hand made lakes in the Deadwood vicinity, with its pretty mountain background.—Courtesy of the Argus-Leader.

Annual Meeting of the South Dakota State Horticultural Society will be held at Aberdeen, S. D., Nov. 30th and Dec. 1st. Don't miss it.

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THE COOT

by
O. A. Stevens



O. A. Stevens

American Coot seems quite appropriate in this instance, though often we feel that the geographical adjective is unnecessarily burdensome. This is but one of the many cases where the name was in use for a very similar bird of Europe before America was known. Our bird is very similar to the one of Europe and was considered identical by Alexander Wilson. There are some ten species of coots, two in the Old World and seven in South America. They are classified with the rails, and more broadly with the cranes. From all of these near relatives they differ in their more duck-like form and lobately-webbed toes which permit them to swim readily.

Mud hen is no doubt a more widely known name. "Spaterer," "blue Peter" and "crow-duck" are among the many other names which the coots have received. Everyone who is at all familiar with water birds knows the ducklike, slate colored birds with white bills which are found on every ready pond often in considerable numbers. They nest chiefly through the northern half of the United States and retire to the southern part or to the West Indies for winter. Mr. A. C. Bent states that they are rare as nesting birds east of Indiana, but on the coast of Virginia he saw tremendous numbers of them in winter.

The nests are made of dead stems of rushes or grass and are usually floating in shallow water attached to growing plants. From eight to twelve eggs are commonly laid. The young are very peculiar in appearance. The first downy covering is mainly black but has long hairs of an orange color. The tops of the head is nearly bare, this and the bill, except for its black tip, being red due to the blood circulation. The down on the under parts is denser and tipped with whitish. The plumage changes slowly, some of the orange-colored hairs persisting for a month. The feet, however, are said to grow unusually fast.

Coots are usually seen swimming on the ponds, especially among the rushes. If surprised in the open they swim rapidly or patter along the surface of the water, rarely rising much above it. Scarcely ever will they rise and fly to another pond. In the fall they gather in great numbers on the larger bodies of water. It is always a wonder how such a bird can migrate but evidently they are fully able to fly when necessary, for some sharp morning in the fall they are missing. Dr.

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September, 1938

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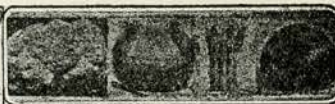
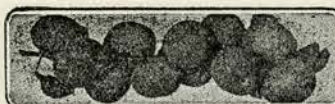
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T. S. Roberts states that in Minnesota the more northern birds come down to the larger lakes and then scatter out to the smaller lakes and sloughs where some remain until the water freezes.

Their refusal to fly even includes escape from birds of prey. On the Atlantic coast the bald eagle often pursues them, seeking to separate out a single bird and run it down. The coot dives or endeavors to hide but alone in open water cannot escape. W. H. Hudson stated that a British writer of 250 years before had related how the European

(Continued on page 106)



NEWSLANTS

by
Harry A. Graves



H. A. Graves

High point of interest for the month goes to the fifteenth annual meeting of the North Dakota State Horticultural Society, August 8-9 in Bismarck.

President Gerbracht of Hettinger opened the meetings with a brief talk in which he expressed the belief that horticulture will make rapid strides in the next few years. He also told, briefly, of his experience in raising evergreens from seed. E. C. Moran from Medora, who has had considerable experience with *Juniperus scopulorum*, next told of methods he has used in handling and transplanting these trees.

Ole Grottodden, Field Foreman in Horticulture, North Dakota Agricultural Experiment Station, led a discussion on the survival and condition of various fruit varieties on the Experiment Station plots. Mr. Grottodden was followed by W. P. Baird, horticulturist at the Mandan Great Plains Field Station, who told of drouth resistance of fruits at their station the past few years.

Frank L. Skinner, horticulturist and nurseryman of Dropmore, Manitoba, then gave a very interestink talk on "Hardy Shrubs and Plants for the North." Mr. Skinner stressed the selection of special geographical forms of plants. He used as an illustration the hardiness of nut trees in western Canada grown from nuts taken from hardy trees in Quebec. Mr. Skinner paid special tribute to the "Pixwell" gooseberry. He feels that it is well named and a good bearer with them at Dropmore. Two year old bushes bore 10-15 pounds of fruit on their plots this year.

E. C. Hilborn, Valley City, nurseryman and former president of the Society, gave a talk on different forms of *Juniperus scopulorum*.

Irrigation advances in North Dakota were outlined by Wm. H. Farmer, Extension Irrigationist.

Following the talks on the afternoon program, the meeting adjourned to permit the group to visit the annual flower show of the Bismarck Garden Club. One of the features of this show was a table with 100 different kinds of plants. A naming contest, where visitors attempted to name all varieties on this table, emphasized how little some of us really know about species and varieties of ornamental plant material.

The Bismarck Country Club was the scene of the annual banquet with Vice President Mrs. F. C. Stucke acting as toastmistress. Tables were very appropriately decorated with glads, Bis-

marck's official flower.

Banquet speakers included Mr. George Will, E. C. Hilborn, Harry Graves, Harold Mattson, and O. A. Stevens.

Mr. Skinner concluded the speaking program with colored slides of several hardy ornamentals grown by him in his Manitoba nursery. This was followed by colored movies of Bismarck homes and gardens.

Election of the following officers for 1939 ended the first day's program: President, Mrs. M. B. Kannowski, Grank Forks; first vice president, Rev. J. Ralph McNeil, Carrington; second vice president, E. C. Moran, Medora; secretary, Harry A. Graves, Fargo; treasurer, E. L. Shaw, Fargo.

Meeting at 8 a. m. the following morning, the group was led by Mr. George Will on a tour to the Mandan Field Station and other points of horticultural interest in the Mandan-Bismarck vicinity.

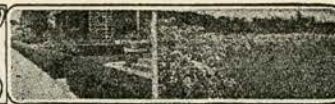
Will's nursery was the scene of a noonday luncheon served by the staff of Oscar H. Will and company, following which President Gerbracht declared the meetings officially ended. E. C. Hilborn invited the group to hold the 1939 meeting in Valley City, but no definite action was taken on the invitation.

Interest in the many talks was very good. Bismarck hosts did an excellent job of making arrangements for the various events, and about the only criticism I could make of the meetings was the size of the group attending. Several, who would otherwise have attended, were kept away for unavoidable reasons. An attempt will be made to hold the meetings later next year in the hope that some of these conflicts can be overcome.

* * *

Franklin Page, of Hamilton, who raises some choice Peonies, had on display at the Pembina County Fair a number of Peony blooms that had been picked for three weeks. Mr. Page has had good success holding Peony buds in cold storage, which in his case happens to be a deep basin of cold water in the ice box. Franklin says the different types of Peonies cannot all be taken at the same stage of maturity; some sorts must be taken earlier than others. Mr. Page was impressed with the Rosilda crab which he has seen at the Morden station and wondered why it is not more generally grown. I passed the question along to Frank Skinner, who said while it did well at Morden it was not quite hardy at Dropmore. Soil conditions at Morden are more favorable for apple growing than they are on many of our heavy, rather poorly drained soils. This may explain in part the success of Rosilda with them at Morden. I plan to try a few trees of Rosilda next

(Continued on page 106)



NATURE DEPARTMENT

by

H. L. Hopkins, Clark

Moraines



H. L. Hopkins

Moraines are formed from glacial drift or deposits. They are of four kinds, terminal, lateral, medial and ground. Terminal moraines were formed at the terminal or end of the ice sheet. Not necessarily at its last or farthest stopping place from its starting point; but anywhere en route, while the ice sheet was either advancing or receding. Climatic

conditions were variable then as now and during the glacial visitations there were periods, of varying lengths of time, when rather profound changes in temperature occurred.

For example, when the ice sheets had reached their farthest limit to the south and were receding, there were alternating periods of warm and cold temperatures. During the mild periods they would melt and recede, leaving deposits of their load or drift. During the following colder periods they would again slowly advance to the south, pushing and piling up their deposits. As they alternately advanced and receded the terminal moraines were formed.

Terminal moraines are represented by broken and rough ranges of hills extending across country in a generally east-west direction. They vary considerably in height and width, but a number of them have been carefully traced and mapped, from near the western edge of the glaciated area entirely across the continent eastward. Several of these great terminal moraines cross the two Dakotas. One of them lies across Clark and Codington counties. They have been numbered and given geographic names, as follows: "The outer, or First is the Altamont Moraine, the name meaning high hills; the second or Gary Moraine, the third of Antelope, the fourth or Kiester, the fifth or Elysian, the sixth or Waconia, the seventh or Dovre, the eighth or Fergus Falls, the ninth or Leaf Hills, and the tenth or Itasca."

The lateral moraines extend from north to

south and were formed by the deposits of drift from the melting eastern or western sides of the ice sheets. The medial moraines were formed by the materials deposited from the sides of two glaciers coming in contact.

Ground moraines are the deposits left from the bottoms or fronts of normally receding glaciers and the deposition from detached bits of ice or bergs.

They cover practically all glaciated areas with drift or till found between terminal moraines. They were smoothed and quite evenly distributed by the flood of glacial water poured over them and by subsequent weathering.

Glacial Lake Agassiz and Outlets

This huge body of water was formed from the tremendous waters of the last glacial visitant, in the mammoth basin of the Red River of the North.

Its basin covered a small portion of northeastern South Dakota, a much larger portion of eastern North Dakota, a very much larger portion of northern Minnesota and an immense territory in the Canadian Provinces to the north.

At its largest extent it is believed to have covered about 110,000 square miles. This is considerably more than the present acreage of water surface in all of the five great lakes combined.

It was formed by the receding of the last ice sheet in melting back to the north, over the natural divide, or height of land, between the drainage systems of the Mississippi River and Hudson Bay.

As this melting movement continued slowly northward, it followed the natural decline, or fall, of that drainage system towards tide water.

The southern front of the ice acted as a dam, impounding its melting waters between its front and the divide. The lake constantly increased its water surface and deepened at its northern extremity.

Outlets

Its first outlet was by way of Traverse Gap, between Lakes Traverse and Big Stone and into the Mississippi system by way of the Minnesota

(Continued on page 101)

N. O. MONSERUD

Landscape Architect Tree Surgeon

Office—First National Bank Building

SIOUX FALLS, S. DAK.

PHONE 555



MULLEINUM

by

Maude K. Backlund, Lisbon, N. D.

Not long since a gentleman by the name of Nathan wrote a piece for the papers which carried me back to the good old days when some of his predecessors made up the extravagant ads for the Sutherland sisters. In case you are not old enough to remember them, the Sutherland sisters were young women whose heavy, lustrous locks reached far below their waists. In my mind they are associated, for obvious reasons, with the Smith brothers. In those unbelievable days of luxuriant hirsute importance, a woman's chief claim to beauty lay in her face and in her golden or raven tresses. Other loveliness there might be, but it was so voluminously concealed, as was so virtuously subdued and hidden the lure of her sex, that the glimpse of a well-turned ankle would cause a normal man to run a temperature.

To return to our subject. The article asserted with bold decisiveness than an infusion of the common herb mullein would thicken the growth of hair on heads not yet polished. It was given as a fact. Mr. Nathan's fact. No one asked him for it he cheerfully, and maliciously, I fear, offered it to a more or less gullible world.

Now in the midsummer of 1937, having read the article with great interest, and being in the vicinity where mullein grew profusely, we gathered an armful of the same and took it home, where some of it was used immediately to make a strong infusion, and the rest was dried on racks in the manner of tobacco. The infusion, to which thirty per cent of the best grain alcohol was added for preservative, was bottled, and distributed among friends and relatives old enough to have an emerging bald spot, yet young enough to be vitally interested in reforestation. Some of it went half-way across the continent to California, where, added to the clime, it may bring promised results.

Something tells me that the vigorous application of the restorer, necessitating as it does considerable manipulation of the scalp, really devastates the region more quickly and completely than Nature was doing. Reports continue to come in from our several experiment stations, and to date, so far as noted, not a follicle has stirred in its sleep.

Yet reference to an extraordinary herb hair-restorer have appeared in New York columnist's paragraphs. Has Mr. Nathan anything on these writers, or do they, too, take delight in underwriting another American hoax?

It is possible, of course, that our northwest mullein lacks potency, but more probable that the post-prohibition alcohol which was used was too powerful, and instead of cultivating the thin-

ning foliage simply mowed it down! Certainly we lacked no faith in Mr. Nathan and his mullein to reap the reward of seeing two stalwart blades of hair where only one is weakly waving.

MORAINES

(Continued from page 100)

River.

As the great ice plow gradually melted back to the north it uncovered a lower outlet for its waters to the east, across northern Minnesota and into the western extremity of the Lake Superior basin. Here these waters were again obstructed by glacial ice still lying across the Superior basin to the east. At the lowest point they were forced across the divide between the Lake Superior and Mississippi basins into the northernmost prongs of the St. Croix River, and thence again to the Mississippi.

Beach Lines of Old Agassiz

Distinct beach lines formed by Lake Agassiz still exist, bearing mute but unmistakable evidence of the existence of that great body of water. Lake Agassiz was named in honor of its discoverer, the eminent savant and geologist, Dr. Louis Agassiz. The old beach lines were his key to discovery.

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BISMARCK, N. D.

PRESIDENT'S CORNER

by
F. X. Wallner



F. X. Wallner
Sioux Falls, S. D.

The 68-page bulletin on tomatoes, from the Michigan Experiment Station, makes very interesting reading, for at this time, July 24th, we are picking 1 to 6 ripe fruits every other day from each plant of many early varieties. This bulletin in discussing the season of all varieties, states, "well grown plants set in the field about June 1st usually yield several ripe fruits in 60 to 90 days, according to the variety." There are about 50 types of earlies listed under Earliana, that are to bear the first week in August, or in about 60 days, while the late types such as Ponderosa, globes, Stone, Ox Heart, Beef Heart and all types of Beefsteak, including 25 varieties under the name of Ponderosa, ripen some fruits in late August, or in about 90 days, and the main crop in about 100 to 120 days, or just about frost time for South Dakota. The main crop types such as Break of Day, Bonny Best, Early Stone, Marglobe, John Bear, Greater Baltimore, Pritchard, and many of the mid-season varieties yield a few fruits in 80 days or about mid-August. While this bulletin lists about 360 varieties of pink and red, 20 varieties of yellow, one white and 10 of the husk tomatoes, many are the old varieties grown in the earlier days and not used much here. The reason it is so interesting at this time is because we have several varieties that are bearing the main crop of fruit before August 1st and even the Break of Day and Penn State are yielding considerable fruit at this date, July 24th, but the plants were set a little earlier than June 1st and have had good growing conditions. While some of these new early varieties may not have the color and shape of Break of Day and similar varieties there are less seeds and acid than in the regular varieties.

Beekeepers in Michigan claim that they have lost millions of honey bees because of the grasshopper bait spread and if so, this may mean that the proper way of killing hoppers is dusting the foliage of weeds where hoppers are feeding.

In a drive on the pavement late the other evening, after a rain, I saw many toads hopping along and a very large number were killed and the next day I saw but one in the garden. I thought it strange that they would be where they would be killed in such large numbers, more than I have seen in years. I had thought the toad, friend of the gardener, was almost extinct.

I tried a strong pair of shears to clip the tips of sweet corn ears to get the worms before they

got down in the ear deeper, but many were lower down than the clipped tip, so I found it quicker and surer to examine the ear and if no worm was there it was not disturbed. Often there were three or 4 small worms, also large ones in one ear, that I killed and then closed the husk, but it leaves a ragged, dried up appearance on the ears opened up even just a trifle.

Cabbages and beans seem to be the favorite food of the grasshoppers, and we use arsenate of lead and calcium arsenate on these, also using the weed burner on cut cabbage or even on the leaves, where the hoppers are thick. We use the weed burner every morning from 5 to 8 and will use it in the evening also, as now they are found on weeds and plants in large numbers. We have used more than a ton of poisoned sawdust. This is the time of the year that the grasshoppers are preparing to multiply and cover the face of the earth. The love song of the male, as he flutters in mid-air about 15 seconds, then alights between onion rows and there finds his mate, is heard constantly, and as LIFE states of the cricket, "they start at once acting romantic." A strong onion breath apparently is not resented by either sex.

July 30th. At this time I would place the tomatoes in the following ripening order All Red, Red Skin, Bison, Penn State, Improved Pink Heart, Yellow Heart, Break of Day, Scarlet Dawn and I note that our friend down in Oklahoma still thinks the Bison type is the most dependable cropper. All types of head lettuce did well this year, the first time in many years, and we should have had a planting of the old type butter lettuce.

A cottonwood tree that has sprung up in the last 15 years near the corner of Fourth and Pierce streets in Sioux City is to be spared and instead of a big office building being erected it will be used as a place for cars and will be known as the "Lone Tree Parking Lot."

The survival of the fittest is a tragic affair among men or in animal life, but in plant life it goes on so quietly it is more interesting. I do not mean where creeping jenny or some other noxious weed is taking someone's farm. That is tragic enough, but I notice the onion plants that are a little too thick, say there are four plants growing up rather close, all is well until they start to make a bulb. Even the center one may be largest, but the three outside ones finally get the upper hand and lift the center one out of the ground, so that it wilts and dies and the other ones grow on and spread out to full maturity.

—

Life is no brief candle to me. It is a sort of splendid torch which I have got hold of for the moment, and I want to make it burn as brightly as possible before handing it on to future generations.—George Bernard Shaw.



TWO BOTANISTS IN YELLOWSTONE PARK

by

O. A. Stevens and J. F. Brenckle

We would be inclined to say "two amateur botanists," did that not contradict our answer to the young lady at a cabin camp who asked whether we were "real botanists or amateurs." A glance at a day's collection was a sufficient answer for most people but we felt decidedly amateurish when we attempted to attach names to each plant.

A three day visit is a very brief one but we can highly recommend our route. The night of June 29 found us at Red Lodge, Montana, the dark, wooded slopes of the mountains with rocky peaks and patches of snow looming up before us. A typical mountain stream tumbled down the valley which it had cut in the foothill plateau and the cool air was laden with the fragrance from the trees. An early morning foray on the plateau disclosed many flowers, some of which were frequently seen later. It happened to be the only place where we saw Montana's state flower, the Bitter-root. Its closed flowers lay flat on the ground that morning but the plant was still unsubdued after three weeks in the press.

Traveling up the canyon, back and forth up the mountain side to the pass at 10,942 feet, furnished one thrill after another. At the timberline we stopped to explore the slope where at least fifty species of spring flowers were woven into its covering much like one of those hooked rugs which the ladies make.

At first it seemed that many old friends were present. Further study indicated that many were not the same and the multiplicity of similar forms remained as one of the outstanding impressions. Certainly there was our Pasque Flower (past blooming) and Western Wallflower (blooming at two or three inches) and Torch Flower. A near relative of the latter, but quite different, was the yellow-flowered *Geum turbinatum* which has common. Blue and purple forget-me-nots, larkspurs and polemoniums were perhaps the most impressive. The sky was patchy with clouds which frequently came below the higher peaks and occasionally swept still lower, spraying us with mist and supplying the answer to our wonder that the flowers grew in such profusion.

After a few more turns over the mountain we came to real snow banks where Mississippi, just ahead, paused to let the children make snowballs. We also side-tracked to collect *Caltha rotundifolia*, quite different from our eastern marsh Marigold and the one flower which was blooming in profusion in the snow-water soaked meadow. Descending again into scattered conifers and then into the usual Lodgepole Pine forest, we encountered the Globe Flower at 8,920 feet. Lower still the poplars appeared and *Geranium viscosissi-*

mum became one of the conspicuous roadside flowers.

It was early afternoon when we actually entered the park and traveled up and down the creeks through frequent showers to Mammoth Hot Springs. Park officials were visited and the necessary permit for scientific collecting secured. We pass the rest of the scenery briefly. A fair idea of Old Faithful and the springs can be secured from numerous pictures and descriptions, but the many little steamers and bubblers must be seen to appreciate the great extent and character of this area.

The lake beaches and meadows near Fishing Bridge were a great place to botanize. Chittenden's handbook of the park rates the lupines among the most conspicuous flowers, to which we would agree with the reservation that on account of their continual presence they are perhaps less striking than some others. The Green Gentian (*Frasera*) was most intriguing to us. It was common in moist meadows, standing two to three feet high. Its thick stem, lily-like leaves and large, branching top, suggested that it should be looked for among the lilies. The Elk Thistle (*Cirsium foliosum*) was also conspicuous along the roadside, its flower heads buried in the bases of the long recurved leaves which clothed the stiff stem. Mountain Bluebells (*Mertensia ciliata*) at the lower levels, was the giant of its group.

The dense pine forest is no place for flowers, but along the roadsides or in natural openings, one finds them in abundance. *Arnica caespitosa*, a foot or less high, with sunflower-like heads, is very common. Yellow columbine, yellow trout lily (we object to "glacier lily" for a plant growing in pine forest), phacelia in long purple spikes and phlox in tufts with astonishingly large white flowers, are striking plants, to mention a few of the many.

Leaving the park by way of the east gate and crossing a veritable desert, we had a morning in the Big Horn Mountains. Sage brush filled in solid with blue lupine and larkspur seemed unbelievable. A little higher the sage brush dropped out and the forget-me-nots predominated with a real blue. Here the Shooting Star was in its prime, usually scattered among the many other flowers, but in one place seen at a distance as a patch of bright pink. The "mile high hill" was a real thriller for travel and the gorgeous blue fringe of *Pentstemon cyaneus* on the brink failed to be fully appreciated.

"We were slowly starving, and finally we cut up our boots and made soup out of them," said the explorer at the boarding house table. "Not so loud," cautioned the fellow-boarder, "the landlady might hear that."—The Maryland Fruit Grower.

SECRETARY'S CORNER

by
W. A. Simmons



W. A. Simmons

Writing from his home at Hansboro, N. D., under date of August 3, Mr. W. E. H. Porter says: "We also have received a grasshopper invasion; came in on the 1st in clouds. However, their reception was a hot one. Besides our poultry, including over 100 turkeys, mourning doves, Hungarian partridges, chickens and many lesser fry found it a veritable Godsend. My garden was a hopping mass for a few hours only and I doubt whether there will be enough hoppers to go around. That's where our bird refuge comes in."

The deadly squash borer is now getting in its nefarious work, as usual for the past several years. If you see a beautiful moth with its wings of a metallic greenish hue and its plump body covered with orange colored scales, hit it with the first hard thing you can lay your hands on, for that is the varmint that lays the eggs. It is claimed that these may be destroyed by spraying with nicotine mixture, along the lower few feet of the vine, but few of us get into action till we notice wilting of the vine and by that time, the nasty white grubs are inside and rapidly eating out the inside of the vine. Sometimes we can still save some of the crop by splitting the lower section of the vine, lengthwise, and getting out the grubs. One local gardener claims to have found four large grubs in one vine. This should be followed by covering up sections of the runners with damp soil so they will form roots that will nourish the vine and take the place of the roots that have been hollowed out and destroyed. We have never known these borers to operate on bush type squash and if this is true generally, one hope would be that our plant breeders will some day give us a bush type winter squash. With the Buttercup and the Banquet squash, the plant breeders have gone about as far as it is possible to go, in putting quality into the squash and evolving a bush type squash could easily be the next most important endeavor.

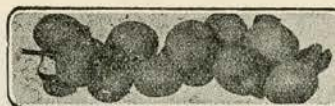
Our friend Mr. Elmer Reeves, of Waverly, Iowa, who many years ago settled the parentage of the Wealthy apple, by telling of a conversation with Mr. Gideon, now adds another interesting piece of information about the time and circumstances surrounding the planting of the Alderman orchard at Hurley, S. D. In a recent letter he notes my inquiry about the date of the setting of this orchard and says: "I happen to know about that. I worked for C. G. Patten in 1882 as fore-

man in his nursery. Along in April a man appeared and introduced himself as Mr. Alderman of Hurley, S. D., and stated that he wanted to buy a carload of apple trees. On account of the size of his wants he was invited to stay at the Patten home. He looked over the nursery and Mr. Patten spent much time with him, but near the close of the second day Mr. Patten came to me and said he could do nothing with that man and told me to talk with him. I took him to a field we had cleared of apple trees, leaving the small ones that were not considered of much value. In a short time I made a bargain with Mr. Alderman and the next day we loaded a car with those small trees and started him to Dakota. A few years later he came to my nursery at Waverly and told me that he sold most of that car of trees but kept enough to plant 130 acres of orchard on Mrs. Alderman's homestead." Considering that this orchard was planted to runts, we think it did real well.

To those that like to try out the new rooting substances, or plant hormones, Kak Salve presents interesting possibilities. This product, made by the Photoy Products, 509 Fifth avenue, New York, is in paste form. This is to be rubbed on the branches of living plants and allowed to remain there for two weeks, when in most cases, traces of roots will appear. The slip is then cut off and planted in soil. It is an interesting and easy way to root slips for the winter window garden. Together with Mr. Dybvig and Mr. Wallner, we had the pleasure of taking in the S. D. portion of the tour of the Great Plains Official Horticulturists and again meeting old friends like Mr. Alderman and Mr. Lantz, whom we had not seen for near 20 years, and Mr. Leslie and Mr. Baird that we had not seen in eight years. Dr. Hansen had some very interesting fruit to show us at Watertown, Brookings and Sioux Falls and the night meeting, with papers and interesting discussions was a real treat. At the last dinner at Sioux Falls, Mr. Wallner added greatly to the menu by furnishing sweet corn, onions and tomatoes from his own fine garden, all of which were greatly appreciated. We wish these tours could come our way oftener. Mr. Kerr, from the Morden station, told of the improvement in the Sapa plum, from its seedings, some being of better quality and many being of greater hardiness. Some advocated making the cross over again with the better quality sandcherry now available, but at Morden they think they are realizing better results from the Sapa seedings.

I am not afraid of tomorrow, for I have seen yesterday, and I love today.—The Earthworm.

Experience is not what happens to a man. It is what a man does with what happens to him.—The Earthworm.



MANITOBA NEWS LETTER

by
W. R. Leslie, Morden



W. R. Leslie

The season has been a favorable one from nearly every count. After a gentle winter, plant subjects greeted the spring in unusual comfort. Fruit bloom was abundant and fruit set was heavy. Timely rains have developed fruit, shrub, herbaceous perennial, and annual flower, favored control of insect pests and imparted growth and verdure to the lawns.

The first fruits of the season are usually relished more than those harvested later. During the first two weeks of July, at the Morden Experimental Station, many sour cherry and Nanking cherry (*Prunus tomentosa*) seedlings, as well as named varieties, are harvested. The Nanking cherry introduced by this station last year, under the name of Drilea, matured a fine crop of fruit this year during the second week of July. Dyehouse, the earliest of the named varieties of sour cherries, was picked the first week in July.

During the latter part of July and first half of August, apricots are harvested. The variety introduced two years ago, as Scout, is harvested during late July or the first week of August. At this same time a number of the earliest sand cherry and plum seedlings are mature. The Assiniboine seedling, Morden Number 101, and a smaller variety from Minnesota named Earliest, are the first plums to be harvested. A few days later the much higher quality Tecumseh plum is picked.

The first crab apple to be harvested is the yellow variety, Silvia. This variety is only in season a few days and has little in its favor except earliness. The early apples, which ripen during the first two weeks of August, are Crimson Beauty, Volga, Anis, Yellow Transparent, and a considerable number of Morden numbered seedlings.

From the middle of August on ripe fruit is much more plentiful and most of the more common and better quality varieties of apples, crab apples, plums, hybrids and grapes are harvested.

Most of the fruit breeding carried on at the Morden Experimental Station is for the purpose of developing varieties suitable for the northern Canadian prairies. With that in mind these very early varieties are valuable for crossing with hardier or higher quality ones to obtain varieties which will mature during short frost free seasons.

After visiting the Provincial Peony Show at Brandon July 5th, three Morden Experimental

Station workmen visited the remarkable plantations of Frank L. Skinner at Dropmore. Surprises and delights surpassed all previous visits and a series of news letters might worthily be penned thereon.

Skinner had returned from addressing the National Rose Society in New England. He brought back assurance from Dr. Alfred Rheder of the Arnold Arboretum that the ornamental cherry growing numerous in Manitoba nurseries is *Prunus japonica* and not *Prunus glandulosa*.

His acquisitions from plant hunting trips to Alberta, Montana, Wyoming, and Colorado include several score of native plants which promise usefulness to Manitoba prairies. These include lupines of complete hardiness, a Crows Nest juniper suggestive of Pfitzer juniper from the Orient but much hardier, numerous selections of Western Red Cedar, a lowly white spirea that blooms all summer, an Alberta Mockorange, Rabbit-bush, Gumbo-lily, Cowboy-lily, cacti, and so forth.

Tens of thousands of hybrid lilies were in bloom and the visitors were invited to appraise one block of over an acre and to give special attention to 19 selections that were in increase rows. Flower growers may begin enjoying the anticipation of many new forms and colors in the umbellatum, philadelphicum, and concolor types. One of the new umbellatum hybrids was carrying 27 large blooms on a single spike. Colors ranged from clear yellow to very deep maroon red.

New hybrids of the Russian almond as mother parent to pollen of *Prunus japonica*, native plum and cherry *Prinsepia* are unusual. Some were maturing fruit. Scotch rose hybrids in various hues were in abundant bloom. His well-known landscape hybrids of the native rose, Betty Bland, was a tall mass of deep pink double flowers. A wildling of the lowly prairie rose was adorned with very double pink blossoms. A hybrid of *Sorbaria arborea* with *Sorbaria aitchesonii* supplies a prized late blooming new shrub.

Herbaceous perennials were legion. *Ononis rotundifolia* with pink fragrant sweet pea-like flowers was thriving. *Companula caespitosa alba* is a very wee white bellflower. A pink yarrow seedling with florets about three times the usual size was arresting. At Morden *Prunella grandiflora* has been esteemed. Here the variety *rosea* with pink blooms was noted favorably. Mr. Skinner is doing great work for the makers of Canadian homes and parks and gardens on his extensive, busy, northern acres.

At that institution of distinctive beauty, the Dominion Forest Nursery Station, Indian Head, many helpful lessons may be learned. It was surprising to see among the specimen groves of 100 trees, planted four feet each way, the native basswood and the Manitoba Red Pine in thriving

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BOOK REVIEWS

by Mrs. F. Briley



Mrs. F. Briley

Gardening for the Small Place, by the late Leonard Barron, published by Doubleday, Doran & Co., Inc., 14 W. 49th St., New York, Rochefeller Center. Illustrated with 13 line drawings and a half tone front-piece. Price \$1.00.

The announcement on the cover of this little book states that "This book is intended as a general year-round guide for the home gardener who perhaps for the first time in his life finds himself in the possession of a plot of land around his new home, which offers opportunity for a personal garden." The book as a whole is well arranged and constitutes a distinct contribution both to the trained horticulturist and the new home owner. It does not bury the readers with the details of the thousand and one things to remember in gardening, but emphasises the basic principles. The author has illustrated the principles of greatest importance with line drawings. The four drawings which illustrate how to transplant trees and shrubs is especially interesting. The book is based on the theory that a garden should be planned exactly the way you plan your home: first the front or public area corresponding to the walls of the home, then the service area, the same as the larger pieces of furniture, and finally a private area of temporary flowering plants compatible to the fragile smaller ornaments in the home. The article on the care of evergreens is worth much more than the price of the book. "Gardening for the Small Place" is a book to be treasured.

The Gardener's Day Book, by Richardson Wright, editor of "House and Garden." J. B. Lippincott Co., Publishers, 227 S. 6th St., New York, 384 pages, price \$2.50.

As the reader is led on and on into the "Gardener's Day Book" he is very likely to ask the question, "Whatever possessed Mr. Wright to adopt such an out of the ordinary style for his book?" Then, undoubtedly because the reader is enjoying the book so much he will answer the question by saying that it simply proves the old statement that gardeners and lovers of gardens are queer people. The book is written in the form of a diary, and in a fascinating way, "kids one along" with a short selection for each day, perhaps a short story, some humorous advice, a bit of philosophy, a choice recipe, or a bit of gossip.

The selection for each day is accompanied with the notice of a job to be performed for that day. It is written in italics and each job is so vital and each selection so interesting that it is

difficult to decide which one is appreciated the more. Sometimes the note following the daily discourse is in keeping with the theme for the day and sometimes it is a job entirely foreign and one is given a sudden jolt as a reminder that you are a gardener and have to work to attend to today. It is not a book to be read at one sitting but one to be kept close at hand and opened for ten minutes or a half hour of delightful reading. If you are a prohibitionist, some parts will not interest you, but, as with the radio, you can turn to something you do like, for the book is full of varieties. Every one will appreciate the story of the farm lady who had a bell hung in the cherry tree and a long string from it to the back of her rocking chair. When the cherries began to ripen, she'd sit all day long in that chair knitting and rocking vigorously back and forth every time a bird appeared. For April 30th, under "Please omit flowers," he gives a new thought proving that economically the sentiment is all wrong. Some of his philosophy is that one cannot have beautiful roses in his garden unless he first has beautiful roses in his heart.

THE COOT

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coots, when attacked by a hawk, would remain in a group and throw up such a spray of water as to ward off the hawk. This was verified by a later observer and has also been seen in the case of the American coot.

The coots feed upon a great variety of plant and animal material. Usually they are not considered as game birds. Among the rushes they are quite noisy, keeping up a chorus of duck-like quacks, croaks and chuckles.

NEWSLANTS

(Continued from page 99)

year in my own plantings to see how it will stand up on heavy Fargo clay beside Dolgo and Florence.

* * *

Many letters and phone calls have asked what causes tomatoes to rot at the blossom end. This is believed to be physiological breakdown caused by rapid growth during favorable conditions followed by a dry spell of weather. Rots found in the fruits are perhaps secondary infection following the breakdown. Blossom end rot itself will not spread from plant to plant.

MANITOBA NEWS LETTER

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condition. One tree in the Blackhills spruce grove is a splendid specimen, tall and stately but with long, densely twigged branches dropping down as gracefully as in the choicest specimen of Norway spruce.

BEEKEEPERS' MEETING

by

J. A. Munro and Bruce L. Morehouse



J. A. Munro

That the summer meeting was a success is the opinion of many of the 150 or so who attended.

Among the notables in beekeeping who spoke on the program or took active parts in the interesting discussions, were L. T. Floyd, Provincial Apiarist of Manitoba, Canada; P. M. Williams, Castleberry, Ala.; H. A. Schmitt, Mandan, N. D.; Dr. H. L. Walster, Dean, School of Agri., N. D. A. C., Fargo, N. D.; L. C. Dadant, Editor, Am. Bee Journal, Hamilton, Ill.; B. E.

Groom, Chm. GNDA, Fargo, N. D.; Charles S. Engle, Thief River Falls; Mrs. Earl W. Rood, Mankato; Miss Constance Leeb, Home Ec. Dept. N. D. A. C., Fargo; Mrs. Willard A. Still, Thief River Falls; Roy Grout, Dadant & Sons, Hamilton, Ill.; Dr. M. H. Haydak, University Farm, St. Paul; Wm. Innanen, Stover Apiaries, Mayhew, Miss.; O. Z. Overby, Bunkie, La.; P. E. Jones, Corpus Christi, Texas; Frank N. Somerford, Navosoto, Texas; O. V. Brown, San Benito, Texas; E. G. Brown, Sergeant Bluff, Iowa; R. F. Remer, Sioux City, Iowa; H. L. Eckdahl, and Robert M. Ray, Minneapolis.

Other people came from Wisconsin and farther, one from Florida; and yet not a single beekeeper came from southeastern Minnesota! Why—when the Secretary made a special appeal for those beekeepers to attend—and a splendid tour to the yards and honey houses of commercial beekeepers was carried out?

The picnic dinner, in beautiful Riverside park, went off in great shape. Those who did not bring their dinners helped pay for ice cream, which went all too quickly.

The program and discussions dealt largely with beekeeping practice in this great Red River Valley, where sweet clover thrives as well as the bees do, and in turn the beekeepers. The extensive fields of sweet clover are especially luxuriant this year—and yet we are told by the experts that the changing trends of agriculture will probably see a lessening acreage of this crop. While many of us envy the tremendous stretches of sweet clover, there are hazards that come in connection with the proximity of too many beekeepers which we do not want. Many of us are satisfied not to want to go there for our beekeeping.

Too many things happened to give an account of all, such as the banquet, the 23-car tour to the yards of E. V. Fischer, disease inspection, etc. One of the finest things of such a meeting is to personally know the wholesome lot of people who

make up the beekeeping personnel. It is a pleasure to meet and know the great and near-great in American beekeeping.

There was a good attendance of beekeepers' wives and other ladies, who listened to talks on Honey Made Foods. Miss Constance Leeb of the N. D. State College, led the discussions, and Mrs. Still of Thief River Falls represented the Am. Honey Institute and told of plans for the Fall Honey Week. The meeting was most interesting and valuable to all present.

The visit to the kitchens and honey house of the Sisters of Mount St. Benedict, at Crookston, was instructive and delightful, where all were entertained in a most gracious manner by these beekeeping enthusiasts. Sister Borgia plans some special research work with honey this coming year. The ladies went away with new ideas and friendships, which are bound to react favorably upon the beekeeping industries in these two states. The men "listened in" to part of the ladies' session and then had a gathering of their own near the apiaries.

A step of considerable importance is the affiliation of the North Dakota ladies with the Minnesota organization, thus making a much stronger group to be known as the Minnesota-North Dakota Beekeepers' Auxiliary. Officers are Mrs. Earl Rood, chairman, Mankato, Minn.; Mrs. Wallace Manikowski, N. D. Sec., Mooreton, N. D., and Mrs. Otto L. Albers, Minn. Sec., Northfield.

The Auxiliary plans a display of honey products at the December meeting of this Association, and more will be heard of this later on.

So enthusiastic are some beekeepers about the joint meeting idea, because of the success of this Grand Forks meeting, that the Secretary was asked to look into the possibility of a joint Dakota-Minnesota-Iowa meeting for 1939.

About this time every year some beekeepers get a "surplus honey fever" and in their fertile imaginations picture honey being sold at ridiculously low prices. Don't sell at below last season prices and at less than production prices. Why not set your prices at a profit and then get that price or no sale, the same as a merchant does? There is no "bumper crop," the country over, and if there were remember that the possible honey consumption per capita is extremely low. One central state association recommends the following retail prices: 20c per section for U. S. No. 1 and 25c for U. S. fancy comb honey, which price should also apply to pound jars; 5-lb. pails 75c to

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To have a dictatorship you must have two things: a man big enough to dictate and people dumb enough to be dictated to. We don't grow either in the United States.—Henry Ford with Chas. Morow Wilson, in *The Country Home*.

THE GARDEN'S FRUITION

by

W. E. H. Potter, Hansboro



W. E. H. Potter

Late summer is the season par excellence for tall perennials, seemingly exulting in sheer exuberance over steady atmospheric warmth, rich soil and a root system that can extract needed moisture from subsoil. Some of such plants are delphiniums, hollyhocks, golden glow, tree mallow, tree coreopsis, tall anchusa italica and monkshood. . . . July 19th, our double white soapwort is in bloom, white, turning to pink later, of orange bloom fragrance. Clumps are about two feet high and neat and upright, from seed sown in May, 1937. . . . July 27th. Grace, beauty, charm and fragrance, all are to be found in the garden now. An example of the latter is an annual artemisia, Chinese fragrant fern, and for grace and beauty, there is nothing better than the cutleaf dwarf delphinium cinerea with its prominent wheel-shaped Italian blue flowers. For charm, the white plush-like foliage of Stachys lanata (lamb's ears), with its ever spreading mats, which like so many good things in North Dakota, comes from the Caucasus. Our new honeysuckle, Lonicera ryringautha from China, with its blue green somewhat linear foliage, is branching out in every direction, and as the blossom is said to possess a daphna-like fragrance, it is a good addition to our North Dakota flora. I have a lovely little Thyme of the serpyllum creeping type, pink, bearing a strong superficial resemblance to heather, though unlike the heather, it is perfectly happy in our non-acid soil. . . . Aug. 2nd. A cool east wind, 73 in the shade, our first real grasshopper invasion which our own poultry, turkeys, ducks and chickens, in addition to the many residents of our bird sanctuary, are taking good care of. Golden glow showing incipient bloom; also Aconitum napellus, blue and white. Lavatera cashmeriana still at its best, which is near perfection. A new mullein, a pinkish violet, much the same as the better known phoenicum, flowers a little larger perhaps, from May sown seed and it is quite surprising how many hardy perennials in N. D. flower the same year as the seed is sown. Also an orange red Tritoma, Coreopsis tripteris, tall, 4½ ft., wand-like, never untidy and erodiums in pink, primrose and mottled, also magic carpet snapdragons, all coming again after a short rest. Though some of alyssum montanum apparently succumbed to too heavy spring blooming, most are putting out a healthy fall growth. A lovely pink Monarda, a rich blue Cape forget-me-not, also a new Erodium,

cheilanthifolium, May sown, white with pink lines, are now in bloom. . . . Aug. 4th. Hollyhocks still at their best and seem to fill every nook and corner. Though sown in 1937 from a packet of mixed fig leaved type, white is predominant in color, the tallest white measuring 7 ft. 3 inches from the ground. One can almost imagine oneself in the beautiful grounds of Lambeth palace in England. . . . Aug. 9th. Just at daylight I saw through a bedroom window a humming bird vibrating over a pink hollyhock. Verbena bonariensis in bloom, May sown, though I sowed a packet of seeds I only seem to have four plants. A lovely dark pink, this will prove very effective, en masse, another year, by which time each plant should have made a good clump. Am very pleased with my new annual sunflower, Helianthus cucurbitifolius; though a utility plant it has a beauty not accorded to the common type, the ground color of its petals varying from dark yellow to pale primrose, zoned in the loveliest manner in red, mahogany and brown, these zonal bands sometimes suffused. My tallest specimen is 5 ft. 8 inches and now the sombre purple of clambering monkshood, the mauve carpet of the hardy petunia, Ruellia ulloso and a first bloom from May sown Dianthus winteri, a single white with crimson lake center and yellow clusters of yarrow, ageratum, with the ever fresh beauty of Delph cinerea, about the only delph that does not go completely off during a summer period of rest, all gladden one's soul. . . . Aug. 15th. A cool damp spell has freshened everything and our heavenly blue morning glory is at last showing intensive growth and myriads of flower buds; our lych gate will be embowered after all. Am rather at sea over fruit on my Oka cherry, now changing to a black blue, but to me it looks much more like a small round plum. For the first time our Latham raspberries have yielded well which I attribute to neglect. While under a state of cultivation the rabbits invariably trimmed the canes to the ground every winter. Since neglect has reigned supreme in way of tall weeds, the resulting tangle has afforded winter protection to vines, also shelter to fruit at ripening time, and the running root system of raspberry has been able to hold its own perfectly, in underground competition.

BEEKEEPERS' MEETING

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\$1.00; 7c per lb. car-lot price for extracted honey is considered reasonable. Many Minnesota beekeepers received 7c per lb. for their honey, wholesale, last year. While your Secretary, or the Association officers are not arbitrarily trying to set your honey prices, yet if beekeepers in other states are getting these prices why should not Minnesota beekeepers get them, too? Don't give your honey away.