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South Dakota State Horiculturist Society

NORTH and SOUTH DAKOTA HORTICULTURE

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NORTH AND SOUTH DAKOTA HORTICULTURE
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GARDEN NOTES

F. X. Wallner, Sioux Falls

May 4—New home grown radishes for dinner, the earliest in several years.

A truck load of asparagus on our streets from Omaha, this trucking in of vegetables just about puts the home growers out of business.

In an old book, "Vegetable Gardening," by Peter Hendersen, we remember reading, "Use Your Feet." How true we find this advise—in sowing peas or beans when the machine does not cover all of the seed how easily one can cover as he walks along. Also in planting my vine crops I never carry a hoe, just before planting. I use a disk cultivator to make loose mellow ridges, often over furrows of manure, and on these plant my seed, just using my feet to make the impression for the seed and covering and packing, no back breaking job and so much faster.

We have out some of the southern frost proof cabbage; also several thousand of our own, and I am sure our own will again mature cabbage before the southern sorts.

I wonder how many use the potato planter for other purposes than planting potatoes. I find it a valuable implement in making trenches for cabbage, tomatoes, cauliflower, peppers and eggplant. Or you can make a ridge for your vine crop by keeping the shoe out and just letting the disks make a nice loose ridge.

We brought home eight pairs of toads from a nearby lake last Sunday for our pool; such fine "singing" all that night and the next morning. Now they have all left and I have not seen one around the yard or garden.

Our lily pool should be very attractive this summer, as the Lily Elegans around the pool will give it so much more color, so be sure to stop your car if only for a few minutes as you pass our driveway.

May 6—Early corn and cucumbers are up; the weather keeps warm and dry. We have been busy all day repairing our irrigating system, carelessness last fall; we did not drain all the pipes so that frost broke them in several places, but we must get water on the newly set cabbage and cauliflower.

May 7—An all night's rain has surely made everything look fresh and green, but it's turning cold and frost is predicted, but the local weather man said it would not clear.

We scattered a lot of hollyhock seed along the road last fall; we would like to see the length of our forty acre garden on Minnesota Avenue all hollyhocks.

Again reports come to us to reduce acreage on potatoes, onions, cabbage, lettuce, strawberries, cantaloup and watermelons; the regular grower would pay some attention to this as he knows what it means to have a glut of these staple crops year after year, but when we see twenty or thirty new growers planting these crops, where is the reduction on acreage coming in?

"If home owned stores," why not "Home grown vegetables"; this will be one of our slogans for advertising our produce this summer or we will say "60 acres of vegetables for local consumption" or "planting radishes every day" or "Bunching vegetables all day."

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NORTH DAKOTA STATE HORTICULTURAL SOCIETY MAY 1930 NEWS LETTER

A. F. Yeager, Secretary, State College Station, Fargo

Breeders have for many years been attempting to get a black rose. A new one is being introduced by S. McGreedy & Sons, which is said to be several shades darker than any heretofore known. It has been named "Night."

Woolgatherer, in the Florists Exchange, mentions the fact that Cyclamen corms have been kept for at least fifteen years, reaching a size of six inches in diameter. They are ordinarily dried off after each blooming period and repotted. Plants older than one year are seldom kept except for the production of seed from some special strain.

"More Potatoes Per Acre" is the title of Extension Service Bulletin No. 128 of the Iowa State College, Ames, Iowa. If you grow potatoes, you will find it interesting.

Mrs. Kent of Mohall reports one tomato plant which showed no injury from freezing when all the other plants were killed and ice was frozen half an inch thick. We suggested that she raise seed from this plant to see whether this characteristic is inherited.

We have frequent calls for sources of black popcorn seed. Gill Bros., Portland, Oregon, sell it and so does the Vaughn Seed Store, Chicago. People who have tried Black Beauty popcorn ordinarily like it very much.

Mr. Moore of Carrington reports that two trials have convinced him that the Tree of Heaven, also called Ailanthus, is not hardy. He also states that Zumbra cherry has not a pleasing flavor according to his taste. In the same mail we received a letter from Harold Orchard of Miama, Canada, who states that among forty varieties of plums and cherries, Zumbra is the one preferred for canning.

We recently received a letter from a party who owns a small nursery which has been left to take care of itself for three years and asks how best to handle it. After that length of time much of the nursery stock is no longer of any value. It would seem to us that the thing to do in this case would be to dispose of everything which is salable and quit the business or else have a grand cleanup and practically start over again.

Spruce trees were greatly damaged by Red Spider many places in the state last year. Some branches of an affected tree recently sent in showed young spiders by the hundreds. While these spiders are too small to see with the naked eye, the trees affected will appear rusty and on the under twigs close to the bark the branches will have a webby ilatted appearance. If yours look that way it might be well to spray hem with a glue solution using a pound of glue to ten gallons of water.

Apparently some folks think that protecting the trunk of a tree with a coat of paraffin where the bark has been removed by rabbits or mice will insure recovery. This is not true unless the tree is able to produce a new bark which it sometimes does. If a new natural bark is not produced the tree will certainly die because the bark is not only a protective layer but is the passageway for food produced in the leaves on its way down to the roots. Without the bark the roots continue to send water and salts from the soil but get nothing back from the top and the result is sure starvation.

The Orange Judd Company of New York has just published a book on "The Cherry and Its Culture." The price is $1.25.

In planting trees, shrubs and flowering plants do not make a hole any larger than is necessary to take the roots. If a large hole is made and the plant put in the soft earth used in filling the hole, it is likely to be far too deep in the ground after the soil has settled. Perhaps the most common cause for failure in planting trees is a lack of sufficient packing of the earth on the roots. Every spade full of earth should be thoroughly tramped before any more soil is put in. The last two or

three shovels of earth around a tree which do not come in direct contact with the roots had best not be tramped at all, it will act as a mulch.

Evidently a goodly number of people were successful in raising the small Jack pines sent out a few years ago. At least we have had some requests for names of places from which to secure more. Two-year old plants which are from two to six inches tall may be purchased at from $3.50 to $5.00 per hundred.

Minnesota No. 223 raspberry has been named "Chief." This name was given it by the Minnesota people in view of the fact that they expect it to be one of the leading, if not the leading, variety of raspberry to be grown for commercial purposes in the future. It is a seedling of Latham but earlier in season.

The usual number of questions have come in as to the safety of eating parsnips which have lived over winter. Overwintered parsnips are good to eat in the spring, and though they become poor in quality after growth has started, they are not poisonous.

Raspberry sprouts which come from the ground this spring will make canes on which next year's crop will be borne. Incidentally, this is the time to see that the raspberry patch is kept within bounds. Do not allow the row to become more than one and one-half feet wide.

Lighter types of soil are much better for growing beans than heavy clay. In the heavy soils of the Red River Valley, beans often fail to mature.

The scuffle hoe is an implement which should be used much more than it is. This tool is built much like an ordinary hoe except that the blade is bent so that it cuts by pushing away from the operator instead of by chopping. It is a fine thing to work with under bushes and between plants.

A small package of seed recently sent in for identification was pronounced by Professor O. A. Stevens to be a mixture of mustard and quack grass.

Spiraea Sorbifolia is one of the finest summer blooming, white flowered shrubs. It does have one bad fault, however, in that it produces many suckers which must be cut off to keep the plant in its place.

Have any of you grown horse beans for stock feed? The enormous yield reported would indicate that they have some possibilities, particularly as a hogging off crop.

A good average yield of navy beans is around twelve bushels per acre.

The New York Experiment Station has developed a cucumber which fruits without pollination. It has been named "Geneva." Of course, fruits produced without pollenizing contain no seeds.

It has been learned that trees less than twelve to fourteen inches in diameter will not pay their way through the sawmill. These measurements are taken breast high.

A log buried in lava 150 feet below the bed of the Yakima River has been identified as a Sequoia related to our present Redwoods. It is estimated to be twelve millions years old.

If you have wood which splits when you drive a nail into it, use a blunt nail, according to the United States Forest Service.

A good job for now is to look over your plum trees for borers. If you look around the trunks of the trees you may find places where there is sort of a brown sawdust coming out of a crack in the bark. This indicates the presence of a borer larva. The thing to do is to get a sharp pointed knife and dig in, find it and kill it. It will be found just under the bark. I am quite positive that we lose more plum trees from borers than from any other cause.

Don't neglect your hedge early in the season. It should be clipped as soon as the long young growth gets a good start. If left too long the leaves on the lower parts of the young growth will have died and when

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EXTRACTS FROM THE DIARY OF A TRAVELING MAN

W. A. Simmons

March 21—At Pine Ridge the lady that conducts the government dormitory inherited from her predecessor a small glassed-in porch about 6x8 feet in dimensions, separated by a window from the dining room.

She found this porch all cluttered up with old brooms, mops, overshoes, tin cans and old trunks.

She soon got these cleared away and in their place has made a little artificial garden, replete with hanging baskets of winter bouquets, stuffed and artificial birds, etc.

A handsome stuffed parrot swings in a loop of bittersweet, and tiny flowers peep up from a rock garden on the floor.

A window box contains a large Russian thistle dyed pink, and in its branches two little celluloid bluebirds disport themselves.

She has converted an appetite destroying eyesore into a little beauty spot.

March 24—A visit to John Robertson's place today was attended with less difficulties than in other years.

The state highway department, recognizing that his place is one of the places many wish to visit, has provided signs to be placed at turning off points, so his place can be easily found.

Also, more important for his comfort, there are no longer gates to be opened.

Mr. Robertson says nature has taken a hand in the gate problem, rotting off the posts, and the residents have not had the energy to replace them.

The last three miles of the road is rocky and rough as ever, and it is to be hoped Fall River County commissioners will some day wake up to improve this, but one begins to lose faith in that ever happening.

Robertson and his men were found processing cider in quart bottles, immersing them in water at a temperature of 110 degrees, so the contents would not take on an illegal kick. Many of his customers do not insist on this being done, but he prefers to be safe.

Leaving the men to complete this work, Mr. Robertson took me out for an interesting walk through his orchards. One of the pests he has to fight is seedling pines coming up in his orchard.

Fine little Ponderosa pines, that many would be glad to give a good home to, he is compelled to treat as weeds.

Of last year's crop of about 6000 bushels, only 3000 got picked, partly on account of the early coming of winter, and in some cases because the varieties were not such that he could dispose of them profitably.

The neighboring squirrels utilized quite a lot of the leftovers, but used only the seeds.

During the winter flocks of wax-wing birds made his orchard quite an extended visit, and were glad to use the part of the apple the squirrels scorned. He showed me several trees of a damson plum named Kovlov, originated in Canada.

The plums are small as are all damsons, and having no market for them, they were not picked, but were still all clinging to the trees, and had become prunes, with rather a raisin flavor and really very good eating.

Mr. Robertson is much interested in pears, and has tried about all varieties that gave any promise of succeeding in his climate.

He regards the Minnesota No. 1 as his best pear, on account of its large size, its high color and its fine quality. He also finds the Mendel of satisfactory size and quality, though not quite as attractive in appearance.

He regards the Tait pears as the hardiest of any he raises.

He also has about all of the numbers of the Hansen pears and regards them very highly as a stock on which to graft the better varieties.

He finds the Lobo apple, the best of the McIntosh seedlings he has

tried on account of its hardiness, its large size and attractive appearance, and its quality. This is an apple that has rather been overlooked by our nurserymen on account of its having been originated in Canada and having no friends in this country to push it.

He has the Cortland and finds it is a good keeper, a highly colored apple and of high quality, but it does not attain a satisfactory size, and is slow to come into bearing even when top-worked.

He gave me several specimens of the Raineer apple, originated in Washington state, which I found to be of very high quality, with a flavor much like Delicious.

He also gave me several large Golden Delicious apples, which were in their prime and of wonderful quality.

His crop of Golden Delicious last year was about 25 boxes and he has certain customers to whom he has introduced it that eagerly buy them.

He has to exercise care, however, about having it become too well known, as it is hard to satisfy people with other sorts after they have become acquainted with it.

On leaving, he loaded my car with three bottles of his wonderful cider and a sack of apples.

If all the Scotch are like Robertson, it would seem the jokesmiths made an unfortunate choice of a nationality for their stories of parsimony.

Our friend Mr. H. E. Beebe contributes the following:

"In looking over the April number of the Horticulturist, I notice your inquiry about grapefruit and here is an idea that may be of some value:

"I have noticed that there are quite a few prairie plants which in about nine years out of ten, or maybe more, never blossom as far as we know anything about. But in some year of unusual rainfall combined with warm weather, they will blossom and at first thought people think they are some new kind of plant that has been seeded by some settler from some other part of the country or they have strayed from some tame flower bed.

"My idea is that the grapefruit grew at one time in some other country but under the climatic and soil conditions of that particular country it never grew larger than a bush.

"While I spent about three week in Hawaii I was certainly interested in seeing the size that was obtained by many of the plants that we have in this country.

"For instance, the rubber plant which has been grown some in houses in Ipswich. In front of the hotel at Hilo there was a rubber plant which had grown into a tree about 90 feet tall and 100 feet across the branches. Also between Jaggers Observatory and the crater they had set out some Century plants which were already seven feet high and about the same across.

"The petunias beside the road on Kauai Island were three feet high. I saw a lot of Poinsettia that were a foot across and had a leaf that was nine inches long.

"For this reason I believe that there are lots of beautiful plants and shrubs all around us here in South Dakota which with unusual conditions would surprise us."

Various people are trying to predict the outcome of our present growing season. Some are reasoning that because several of the years ending with a cipher have been dry, 1930 will inevitably be dry also.

My belief is that "prognosticating the precipitation" in our section is not apt to bring any profit to the weather prophets.

If you have been long a resident of our section, and can imagine a year totally different from any you have ever experienced, you may possibly envision the conditions that will prevail here this year, where the "weather bureau man" can pull off anything and get away with it, but craves variety.

EXTRACT FROM "ADORNING THE FARMSTEAD"

W. R. Leslie, Morden, Manitoba, in the Nor'west Farmstead

Planning the home grounds is a fascinating game. It is well to admit at the outset that there are several dozen methods of treating any farmstead, any one of which would be effective and fine. Some like clipped hedges, arbors with vines, archways, creeping ground covers and herbaceous perennial borders. Other people fancy unclipped hedges and some consider all hedges too formal. Some wish bulbs and others desire only annuals that are seeded out-of-doors. There is really no limit to the variety of treatments available and each has its merits. It is opportunity for choice and individual expression.

Some people wish open views. Too many people, unfortunately, have nothing else. It is an easy matter to have clear vistas that leave part of the highway an open prospect. On the other hand, it is not a sign of quality to have "all the goods in the window." To secure a sense of cosiness, the house should not be in fullfaced view for a long continued stretch along the highway.

In arriving at final plan it is helpful to visit the homes of neighbors, public parks and the grounds of agricultural colleges and experimental stations, and then employ for one's own items that especially appeal.

Among the objectives to be incorporated are some trees and shrubs that come early into leaf and that retain their foliage into late autumn, some evergreens, some notable for spring bloom, some that blossom late in the season, some that carry quantities of attractive fruits, some whose autumn foliage is a riot of colors, some that will feed the winter birds and some that will add life and cheeriness in the drear winter days by virtue of their rich colored barks and fruit.

Some Useful Shrubs, Flowers, Etc.—Happily, there is a fine assortment of hardy material available to supply each of these ends. It would entail a substantial bulletin to go into many details but a few comments are given on material as used at the Morden Experimental Station:

Early Foliage—Laurel-leaf willow, siberaea, prinsepia, alder, redelder, ornamental currants and some of the spireas.

Early Bloom—Birch, alder, elder, hazel, flowering currant, native plum, Siberian almond, arguta and media spiraeas, double flowering plum.

Second Early Bloom—Pembina (Highbush cranberry), nannyberry, arrowwood, VanHoutte spiraeas, hawthorne, horse chestnut (hardy form), lilacs, honeysuckle, altaica rose (a very handsome, completely hardy, large, single rose), red-leaf rose, shrubby potentilla (blooms all summer), caragana, hopa crab, Siberian crab, cotoneaster, dogwoods, euonymus, tangutica and ligusticifolia clematis, Harrison's rose and mountain ash.

Summer Bloom—Japanese lilac, salt bush, false indigo, lead plant, billardi and semperflorens spiraeas, black elder, hydrangea. For very late bloom amur tamarix is a treasure.

Autumn Foliage—This is a wide study and is treated at some length in the 1929 annual report of the Morden Station. A few of those with brilliant foliage are nannyberry, Pembina, native Euonymus, ginnalian maple, mountain maple, saskatoon, dogwoods, Thunberg's barberry, rosa nitida, prairie rose, white birch, aspen poplar, sumach, mountain ash, cotoneasters integerrima and acutifolia, and sand cherry.

Bright Fruits—Dolgo crab, rugosa rose, native rose, pembina, hawthorne, sumach, red elder, cotoneaster acutifolia, buffalo berry, Russian sandthorn, mountain ash, native euonymus, pin cherry, sumach, Siberian crab and honeysuckles.

Colorful Winter Bark—Britzensis willow, golden willow, red willow, ural willow, Siberian dogwood, Bailey dogwood, alternate-leaf dogwood, golden dogwood, white birch, alder, pincherry, cotoneaster, integerrima, Pembina (red buds), sumach (spike of red fruit), Russian sandthorn (strung with rich golden fruit all winter), Betty Bland rose.

Large Hedges—Caragana, white birch, green ash, laurel-leaf willow, white spruce, lilac, honeysuckle, hawthorn, nannyberry, chokecherry, buffalo berry, native plum and ginnalian maple.

Small Hedges—Dwarf caragana, cotoneaster, arguta spiraea, altaica

rose, pembina, arrowwood, dogwood, badger brush, euonymus linearis, common juniper, Savin juniper, red-leaf rose, Betty Bland rose, Thunberg barberry, hazel, saskatoons, sour cherry.

Hardy Vines—Clematis tangutica (yellow), clematic ligusticifolia and clematis virginiana (white), clematis verticillaris, Virginia creeper, native grape, native hops, native honeysuckle, bittersweet.

Foundation Planting—Spiraeas, dogwoods, honeysuckle, cotoneaster, elder, Siberian almond, rugosa roses, shrubby potentilla, salt-bush, dwarf caragana, Schrenk's mock orange, sandcherry, dwarf mountain pine, common juniper, Savin juniper, red-leaf rose, Albert Regel honeysuckle and Thunberg barberry.

The time to plant trees and shrubs on our prairies is in early spring before the buds burst. April planting is preferable to May and June is considerably too late. Some of the native material may be dug from the woods and most trees and shrubs may be raised from seed. However, planting seed is usually annoyingly slow and the best satisfaction is undoubtedly secured by the persons who buy well grown stock from the commercial nurserymen. The nearer the nursery is to your territory and the less time that elapses from time of digging and packing to the replanting in its permanent site, the better for all concerned.

A last word is a gentle but urgent request. Please see that each child is given one long lived type of tree for his very own. Let it be his when planted and forever after. The tree will be a friend in joy and in sorrow. It has its roots in the fertile prairie soil and stretches itself upward towards the heavens. It is an emblem of many of the virtues—patience, courage, persistence, humility and beauty. The boy will find companionship and inspiration in his tree. They will grow up together and he will be strengthened by the silent beauty of the tree. After the winds and storms of winter comes spring time when the tree is clothed in a new glory and is a picture to stir new hope and to enlarge one's ambition. Most adults look back with tender feelings and gratitude to some now noble old tree which shared his companionship in golden boyhood days. Such a possession is a rare personal asset and may easily be the common lot of all young citizens.

GARDEN NOTES

(Continued from page two)

The earliness test of melons at University Farm, Minnesota, is very interesting; it would be worth while to know that Knight, the leading variety, is of good quality. Sorry not to see Hungarian Honey listed with the watermelons as I consider this the best watermelon for the home garden for these northern states.

May 11—Sunday, Mother's Day—I again made the trip to Yankton to set out plants in mother's garden and spend the day with her. The return trip was a muddy drive, and I noticed the gravel roads that were the worst were those that were too flat and a ridge or two of loose gravel along the outside holding the water in the road; no wonder the roads are in bad condition. No 46 between Beresford and Centerville was especially bad, other stretches raised a little in center were good.

May 14—Cold rainy weather for a week but thankful we have had no frost and it does seem we should escape the frost now, but the sweet corn, tomatoes, summer squash, beans and cucumbers that are up get nipped so easily in this low valley.

The freeze of Saturday morning the 17th is just showing its bad effects. The Beta grapes are all frozen, so it looks as if there will be no grapes, not even the wild ones; other fruits are also blasted. Our early corn looks as if it is gone; the beans and cucumbers of course are lost. The cucumbers wilted from the cold wind of the Friday morning preceding the frost; the temperature at 33 and a wind was more than they could stand. Even cauliflower has turned yellow today, the 20th, a very warm day, and some of the set cabbage, also.

We had a very heavy smoke smudge and I think it helped some, the only consolation we have is to see the foxtail also turning brown so that some of our onion patches do not look as green after this hot day.

HOW TO NAME THE BIRDS

Professor O. A. Stevens, State College Station, Fargo

The third week of May is the time when the largest number of different kinds of birds are to be found in North Dakota. Most of our summer residents are here and a great host of migrants have gathered, waiting for the final turn of weather which ushers in the summer.

Frequently someone expresses a desire to take a course of study in order to learn to identify the birds. Much might be gained from such a course but the fact is that the way to know the birds is to observe them whenever the least opportunity offers. Those who are best acquainted with them have obtained most of their knowledge from persistent observation rather than from a course of study.

The identification of birds is a comparatively simple matter now compared with what it was 25 years ago. An abundance of colored pictures has made it easy, but if one wishes to learn more than a few of the commonest kinds there is ample chance for study. The publication of Reeds "Bird Guide" may very properly be said to have given us the key to this field. Here, for the first time, in two pocket sized books costing about a dollar apiece, we had colored pictures of all of the birds of eastern North America.

About the same time, the magazine "Bird Lore" began a series of colored pictures in which most of the smaller birds have now been shown. During the same period a number of books on the birds of this particular regions have been published. The most useful of these for North Dakota is "The Birds of Western Canada," which costs only $1.25. For the same price one can buy the colored plates from "The Birds of New York." These contain a large part of our birds and are some of the best pictures available.

The pocket size of "Bird Guide" allows one to carry it easily into the field and compare directly the birds with the pictures. It may be hard to reach a decision or the bird may not wait. A brief description written in a notebook at the time of observation is recommended. Outline sketches may be prepared in advance so that color markings can be noted quickly.

The spring is the easiest time to observe birds for they are then in their best plumage and the singing males are conspicuous. Songs are much less in evidence after the young are well grown. In the fall most birds attract little attention and the young ones of many species are hard to identify. The best time of the day is the early forenoon. Birds are most active then and the air is more likely to be quiet. Field glasses are a great help because very often one cannot get quite close enough to see distinctly without them. It is very important to keep one's back to the sun if possible. A bird seen against the light will show very little in the way of color.

Comparison with colored pictures is only the first step in learning to know birds. If this method is used alone it often will lead one astray. Continued field observation is necessary to recognize the birds by their habits and behavior. Frequent reference to local lists to see what species are to be expected and at what time of year they may be expected is especially helpful.

A few years ago while talking with a man of long experience he remarked that he rarely used field glasses. I was much surprised at this, but without realizing it I was coming to the same point. The practiced observer recognizes the birds largely by their notes and behavior. In the last few years it has become impressed upon me that one could dispense with sight better than hearing. The ears are a wonderful receiving set. On a quiet morning they gather in the sounds for a quarter of a mile or more in all directions. Many a bird is heard and not seen. Many a time a bird song has come to me through the window before I was out of bed and the day has passed without a single sight of the singer.

In identifying birds from the descriptions of others, behavior often is more important than color. The observer may fail to see the colors well enough, he may not distinguish color well, or what is still more probable, he may not describe the features which are really distinctive. The upward spiral climb of the brown creeper on the tree trunks and the head downward position of the nuthatch names these birds at sight regardless of color. The elusive skipping of the kinglets among the tree branches is almost distinctive. A bird which darts from a limb to snap up a flying insect is most likely to be a species of flycatcher or else a warbler. The fan-like opening and closing of the restart's tail is seen farther or in poorer light than the bird's colors.

The chimney swift is ordinarily seen only when flying, but its bat-like flight is easily recognized. The wave-like flight of the goldfinch can scarcely be confused with anything else unless it is the closely related redpoll. The white wing patches of the shrike as it flies past with strong beats of its short wings are conspicuous. The V-shaped formation and slow wing-beats of the wild geese is well known. Once I remarked to a friend of longer experience that I did not know the different kinds of hawks. His reply was that they could be distinguished quite easily by their flight.

The behavior of birds on the ground is equally characteristic. Brown thrashers, towhees, fox sparrows and white throated sparrows scratch vigorously, throwing the dead leaves about. The thrushes show plainly their relationship to the robin by the erect motionless position of their plump bodies, alternating with brief but swift running movements. The teetering walk of a waterthrush is unique among its relatives, but will hardly cause it to be confused with sandpipers which such movement might suggest.

The distinctive character of bird songs is more generally recognized than the other features to which I have referred. The songs are difficult to describe and few people can imitate them, yet the average person can readily learn to recognize the birds in this way. To know them well may mean much more than knowing a single song. There may be different songs for different occasions or times of year. The call notes are even more important for they are heard more frequently.

One thing which I would emphasize does not have to do with field observation. It will be very helpful to study carefully a local list to see what species may be expected and at what season they are to be found. This will avoid the necessity of considering many kinds which are not likely to be seen. Of course rare and unusual birds which are not likely to be seen may be found, but the chance of this is small. The great majority which the beginner will see are the most common birds of the region.

The last remarks apply especially to groups in which several very similar species occur. Among the sparrows, the tree sparrow and chipping sparrow are quite similar and both are common here. They differ widely as to season. The chipping sparrow is a summer resident arriving the last week of April. The tree sparrow is only transient, appearing the last of March and leaving before the chipping sparrow arrives. The field sparrow (and this is a particular species, not simply a sparrow which happens to be seen in the fields) is found in some parts of North Dakota but is not present in most of the state. The thrushes are hard to distinguish, but the wood thrush may be left out of consideration for it does not occur so far north. The same comment applies to the mockingbird.

A study of museum specimens is very helpful, especially to fix in mind the small differences between similar species and to put us aright on the exact markings. It gives us little clue to the behavior of the bird in the field, which I have tried to show is more important to one's knowledge of birds.

FOR SOUTH DAKOTA

Memberships sent in after June 1 will not receive premiums until this fall or next spring. A fall premium list will appear later.

Apples that bore a heavy crop last summer in part of the state that received little rain produced fewer blossoms this spring than usual.

Planting of nursery stock has been heavy in all parts of South Dakota this spring and with the abundant rainfall the plants should do well.

Macy C. Spencer tells us in her article in the May Minnesota Horticulturist that experienced market gardeners demand two-year-old seeds of cucumbers because two-year-old seed produces shorter vines, with more and earlier fruit than one-year-old seed.

Mrs. N. W. Mowgrain of Marietta, Minnesota, submitted the name "Chief" for the new Minnesota No. 223 raspberry in a contest. The name was chosen because it suggests superior quality and leadership. She received one hundred plants of the new raspberry, that she named, as a prize.

Mr. G. F. H. Burckley of the Dominion Experimental Farm at Brandon, Manitoba, in an article on "Annual Hays" says, "Hubam, an annual form of white sweet clover, has not yielded as well as the common white or common yellow varieties." Can any of the beekeepers give us information as to the value of this clover as bee pasture?

Mr. L. C. Young of the Dominion Experimental Station gives us the following in the "Experimental Farm Notes":

"Many varieties have been tested over a long term of years at the Experimental Station, Fredericton, N. B. For general purposes this list may be narrowed down to three varieties, namely, Senator Dunlap, Premier or Howard 17 and Glen Mary. In eight years average from one-year-old plantations, Glen Mary ranked first with a yield of 5210 quarts per acre, and was followed in order by Premier and Senator Dunlap with yields of 4753 and 4592 quarts respectively.

"In a three year average from two-year-old plantations, Senator Dunlap ranked first with a yield of 6435 quarts per acre, and was followed in order by Glen Mary and Premier with yields of 6108 and 5105 quarts respectively.

"Senator Dunlap is a vigorous grower and a strong runner-maker, and is adaptable to a wide range of conditions, although doing best, perhaps, on the heavier types of soil. For these reasons, it is the most popular of the three varieties in Eastern Canada, although the other two are well worth consideration."

It is seldom that we publish a letter but this one from our friends, Mr. and Mrs. Whiting, will be welcomed by many of our readers. It is as follows:

"When the March Horticulturist came I spent the evening reading to Mr. Whiting the messages that our friends had written. It seemed like spending an evening with you. Your message was real and personal to us. As we read them we talked of our experience with many of you and our experiences of the years when we worked together for the interest and benefit of South Dakota. Mr. Whiting will never know how many people in the dear old state are sitting in the shade of trees he started, eating fruit from trees he recommended or how many homes are more attractive because of the shrubs he sent out, but there is a lot of satisfaction in knowing he has an influence in making the history of South Dakota. Mr. Whiting is a life member of your society, and a good friend has sent my name in so we are still a part of your society.

"We are sort of pioneering up in this 'frost proof fruit' belt of northern Wisconsin, and as I read about your experiences I see that everything is somewhat different. Soil, location on the big lake and in the 'cut over' country. We have some fine apples on a sidehill and when the little Dybvig boy was here he said, 'Why, this is just a sand pile,' when they were up to look at the trees and the view. We wish more of our friends from South Dakota would come to see us. We get lonesome for you.

"Mrs. George H. Whiting, Bayfield, Wis."

NORTH DAKOTA BEEKEEPING NOTES

J. A. Munro, Secretary, North Dakota Beekeepers' Association, Fargo

Plans are shaping up nicely for the summer meeting of the North Dakota Beekeepers' Association. It has been decided to hold the meeting at Carrington, North Dakota, July 18. Mr. Frank C. Pellett, author of a number of books on beekeeping and present field editor of the American Bee Journal of Hamilion, Illinois, has already been secured to take a prominent part in the program. This will be Mr. Pellett's second appearance at a summer meeting of the association. He took part in the meeting at Carrington four years ago, and beekeepers who had the good fortune to hear him at that time will be especially pleased to hear that he has been again secured.

Other speakers who have already been secured include Hon. Joseph A. Kitchen, Commissioner of Agriculture and Labor, Bismarck, North Dakota, and Ralph G. Smith, President of the Mountain States Honey Producers' Association, Amenia, North Dakota.

Indications point to a large attendance at this meeting judging by the number of inquiries already received. Mr. W. F. Boylan, President of the North Dakota Beekeepers' Association, also mayor of the city of Carrington and in charge of local arrangements, writes that the citizens of Carrington will put forth every effort for the entertainment of the delegates to this meeting.

A letter received recently from the office of the Commissioner of Agriculture at Bismarck has confirmed the reappointment of the following deputy bee inspectors for North Dakota: J. D. Beals, Dwight; Gordon Bell, Grand Forks; W. F. Boylan, Carrington; Charles Hausmann, Hillsboro; Marvin Huckle, Wyndmere, and W. O. Victor, Jr., Chaffee, N. D. In their inspection work this season they have been instructed to follow the same policy as that of last year.

During the past year a total of 10,128 hives in 28 counties of North Dakota were inspected. Results of inspection work during the past few years have shown that bee disease is being kept under control, and in a few centers it has been eradicated.

Mr. D. C. Babcock, representative of the A. I. Root Company, visited the Department of Entomology at Fargo and a number of beekeepers of the vicinity on May 18 and 19. Mr. Babcock made the trip by auto and reported a very pleasant trip through the various states along the way.

A number of reports on wintering have been received during the past couple of months and, in the majority of cases, the reports indicated that bees wintered through in excellent condition but that an abnormal amount of honey had been consumed.

A letter received recently from a beekeeper of Sargent County, which is rather representative of a number of other reports received from beekeepers in several other counties in the past few weeks, states that sweet clover is about totally winter killed in the vicinity of his bee yards. He asks if alfalfa bloom is reliable as a nectar yielder. According to the observations of the past few years we would say that alfalfa bloom is not dependable as a source of nectar. Some years it yields well and bees are to be seen working the bloom almost as readily as that of sweet clover bloom, but other years alfalfa as a nectar yielder appears to be almost a complete failure. This beekeeper stated that sweet clover was not killed out at a place about 15 miles distant from his apiary, and inquired as to the advisability of moving his hives to that place to take advantage of the nectar when the plants come into bloom. We advised him to keep his apiaries at the present location for a few weeks or at least until the fruit bloom and dandelion period is over, and then if conditions would warrant at that time it might be very desirable for him to move his apiaries to the sweet clover fields even though it necessitates a 15 mile haul by truck.

The beekeeping library of the North Dakota Agricultural College has

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A MORE PRACTICAL TREE BOUNTY LAW

Seth M. Hulbert, Caputa

A state representative has called my attention to the tree bounty law. He wanted to know if I ever got any bounty on my trees. I told him no, the law called for too many trees to the acre to be practical. Then he wanted to know what kind of a law would be practical. So I am putting this thing up to the readers of this magazine. I do not recall just how the law reads but I remember that when I did read it, I said, "No show for me, I wouldn't plant trees that close."

Some, of course, will say that a bounty law is not necessary but if we are going to have one, we better have a practical one or repeal it entirely.

It seems to me that while trees might be planted fairly close in the row, any spacing of rows closer than 30 feet in our part of the state is inviting failure from the start. I do not believe that there is any use preaching about firewood and lumber as incentives for tree planting. We are raising a generation that knows not the axe. In a few years we will be using South Dakota oil for fuel and making synthetic lumber out of sweet clover stalks and wheat straw.

What we really are going to plant trees for is windbreaks, shade and fruit. And we want large vigorous trees. A few large trees are worth a lot more than ten times the number of little stunted ones. Wide spacing of rows allows the use of plow and disk between, after the limbs have begun to spread. It will not only help the trees to grow but will tend to prevent fire damage. How about it folks? Could a law be made that would really get people to plant more trees in a way that would be likely to make lasting windbreak?

Editor—The South Dakota tree bounty law. Let us have your opinions.

TREES Session Laws 1927

Section 8045. To Whom Paid. Any person who, after the year 1920, shall have planted and successfully cultivated the number of forest or fruit trees or shrubs prescribed by this article and who shall have complied with the provisions of this article, shall be entitled to a bounty of five dollars ($5.00) per acre, on not to exceed ten acres, each year for the period of ten years, to be paid by the board of county commissioners of the county in which such trees are located, out of the general fund of such county; provided, that such person shall continue to comply with the provisions of this article.

Section 8047. Number of Trees to the Acre. To secure such bounty there shall have been planted not less than one hundred and fifty trees to the acre, and there shall be not less than one hundred living trees per acre in any year for which such bounty is paid. Provided, that any trees or shrubbery planted after July 1, 1927, may by resolution of the board of county commissioners passed at the first regular meeting of such board in January, of each year, be required to be arranged and planted substantially as follows:

(a) Elms, ash, black walnut, box elder, native cedars, Black Hills spruce, ork, cottonwood, willows or other trees of like character not herein specifically mentioned, in rows forty feet apart and such trees twelve feet apart in each row.

(b) Russian olive and caragana in rows thirty feet apart and such trees five feet apart in each row.

(c) Apple trees in rows forty feet apart and such trees forty feet apart in each row.

(d) Plum, pear, cherry or other similar varieties not herein specifically mentioned, in rows thirty feet apart and such trees thirty feet apart in each row.

(e) Caragana, artisima, buckthorn, spirea, common lilac and other similar varieties of shrubs not herein specifically mentioned, in rows thirty feet apart and such plants one foot apart in each row.

(f) Lilac, snowball and other shrubs of a similar variety not herein specifically mentioned, in rows twenty feet apart and such plants five feet apart in each row.

NORTH DAKOTA STATE HORTICULTURAL SOCIETY
MAY 1930 NEWS LETTER

(Continued from Page Four)

you trim it, it will have a bare appearance. Trimming early and often is the proper thing for maintaining a good hedge.

One way to have an interesting garden is to specialize in some particular thing. If you know more about varieties of peas than any one else, or about zinnias, asters or glads, your garden will be an outstanding one in the neighborhood. If you have a Garden Club, why not let each member make a specialty of one thing and then pass on the information gained to his neighbor.

Growing asters is rather a disappointing thing with most people. They usually do so wonderfully well for the first year or two and very little thereafter. The trouble is disease, when it once gets a start it is almost impossible to control.

What kind of plants might be grafted onto wild plums, asks one correspondent. Any kind of plum or sand cherry hybrid may be successfully top-grafted onto wild plum. The thing necessary is to have something which is a near relative if the grafts are to take. Even apple, though a member of the rose family, is not a near enough relative for grafts to succeed. Stories of apples grafted on oak roots or cottonwood cannot be true. While apple can be grafted on thornapple, or Red Haw as it is sometimes called, the union is not good and this cannot be recommended as a practical proposition.

Watch your Glad garden this spring. If the plants do not look healthy and show a yellowish mottled appearance, the best thing to do is to pull them up, bulb and all and burn them. A diseased bulb left in the field will not only do little itself but will affect the neighboring bulbs and the soil as well. If a diseased plant is from some new high priced bulb, we suggest that you write the person who sold it to you and explain the situation. Perhaps they may replace it for you.

Birds which peck holes in trees are not always after worms. Sap suckers, which make rows of holes around the tree trunk set close together, often do a great deal of damage, particularly with evergreens. When one of these birds begin to operate on your trees it is necessary to either scare him away permanently or else kill him.

We have ten apricot trees which bloomed profusely this spring and there are seven or eight pear trees also with considerable bloom. Quite a number of Russian cherries also show promise of a crop. Considering the fact that apple trees are blooming rather lightly and plum trees showed a great deal of damage from drouth last summer, it would seem we are well on the way toward successful growing of these unusual kinds of fruit here in the North.

In "Wisconsin Horticulture" we note an article by H. H. Harris of Warrens on strawberries, in which he recommends removing the parent strawberry plant and the weaker runner plants as soon as sufficient young plants have been formed. This sounds like a practical procedure, because it will check the production of runners which would only mean the setting of more plants than the ground can carry.

Do not forget that newly set strawberry plants should not be allowed to bear the year they are set. This is prevented by picking off the blossoms and young berries. A fall crop of the Everbearers is all right.

The Boyce-Thompson Institute of Yonkers, N. Y., is doing a lot of splendid work. One piece of investigation is determining how to handle seeds between harvest and the date of germination in order to hasten germination and to ncrease stands. Professional Paper No. 15 from that institution is entitled "Harvesting, Storage and Stratification of Seed in Relation to Nursery Practice." This takes up about one hundred different species of plants. It gives the best storage temperatures for each and the length of time necessary for stratification. No doubt you could get a copy of this paper by asking for it and enclosing a few cents for printing and postage.

Breeding for disease resistance still continues. The University of Wisconsin is developing varieties of canning peas which will withstand wilt disease.

A new variety of red raspberry worth giving a trial is "Viking." This was originated on Prince Edward Island by S. F. Reeves. It is making quite a record in the land of our neighbors to the north and has done well at the New York Experiment Station. It is said to be practically disease proof.

Professor Fitch of Iowa says the one safeguard which checks overproduction of onions is the necessity of getting land free from weeds from three to ten years before real profits are secured. If you should happen to try onions this year and the weeds are too bad, I suggest that you forget trying to make a profit this year and plow the land up and summer fallow it. Every weed allowed to go to seed this year on the field to be planted to onions next year or the year after will cost hours of backache if your onions are to be kept clean.

Some interesting figures have been collected recently from potato growing regions which show that the man who spends the most money on an acre of potatoes gets the largest yields and produces his crop at a less cost per bushel. After all, it is the production cost per bushel which determines whether you make money on potatoes or any other crop.

This is the time of peony and iris shows. To get the very finest bloom from most varieties it is best to cut them just before the blossoms open and let them open inside. In cutting peonies, do not cut the stems so long that you take about all the leaves with the blooms. If you do this it will damage your crop of blossoms next year. An eighteen inch stem on peonies is plenty.

NORTH DAKOTA BEEKEEPING NOTES

(Continued from page 12)

recently added to its list of literature on the subject of beekeeping the following English publications: "Bees and Bee Keeping," two volumes, by Cheshire; "Bee Keeping For all, and Lore of the Honey Bee," by Edwards; "Bee Keepers Vade Mecum, and Profitable Bee Keeping," by Geary; "British Bee Keepers Guide Book," by Cowan; "Queen Rearing in England," by Sladen, and "Book of Bee Keeping," by Webster, and two wall charts including the anatomy of the worker bee, and the larva and pupa stages of development.

The following beekeepers have added considerably to their holdings during May: Mr. W. F. Willings of Parshall purchased upwards of 45 hives of bees together with a considerable amount of equipment from the Ritterbusch Brothers of Bismarck. Mr. Joseph Finstad of Hickson has recently purchased upwards of 100 colonies and equipment from Gordon Bell of Grand Forks. Both apiaries were inspected and provided with certificates of health previous to sale in accordance with North Dakota regulations.

ORCHARD NOTES

C. Bolles, McCook, Neb.

No frost since April 15. In theory there should have a been a great set but there wasn't. Don't know if it was the hail of two years ago, the dry summer fullowed by '28 or just plain no set. Grapes look fine. Got only the Beta Lucile and Worden though the Keuka pulled through Fredonia hasn't started yet.

Getting poor set on the high toned cherries (Chase, Fernwood) will have top of Chase to check on this summer.

No apples—they simply grow.

Doubt if we get any pears though have a tree of Tait No. 2 and Hansen No. 34 to bloom, heavy.

See there's a sample lot of Minnesota No. 24 currant and will have sample of the Chief.

Now for plum misery. Got a nice set, buds and grafts, on the Swiss prune. It's companion in riping, No. 194, again is showing up with a nice set equalled only by Waneta. Underwood, Red Wing, Omaha, poor set; Tonka, fair; Winona, fair-good; Hennepin, St. Anthony, Oka and Sapa appear heavy; Opata, fair; Zumbra, heavy. This covers the main ones.

Haven't decided if I know anything or not, too much rain; also too much other misery, but will have to go through with it.

Oh, yes, got Oka crown buds six inches high; these will be all branched and cut back by fall. That's the way I like to grow the sand cherry stuff, it makes a dandy bush if set low enough to get on own roots.

See I made a mistake following Robertson. Ought to have planted an Oka between trees in same row then they'd come out soon enough. Some of sand cherry stuff going out early in life. Just plain winter killing I guess.

STRAWBERRY ROOT-ROT

A. R. Walker, Dominion Laboratory of Plant Pathology, St. Catherines, Ont.

Root-rot or black-root is a fairly common disease of strawberry plants. Apparently plants of any age may be attacked but they are most susceptible at two periods, as follows: (1) shortly after being set out, (2) at fruiting time. In some patches little or no evidence of the disease can be found while in others 50 per cent or even 70 per cent of the plants are destroyed.

Symptoms

Plants which develop root-rot while young fail to grow normally and therefore have a stunted or dwarfed appearance. If plants are almost full grown when the disease attacks them the destruction of roots makes it possible for the plant to support the large top. Such plants wilt very quickly. Sometimes young plants show the wilting symptoms as well as remaining dwarfed. In mild attacks the plants may live on until fruiting time. However, they are too weak to bear a crop and either die or at best produce very few mature berries.

Plants suffering from root-rot may be pulled up more easily than healthy plants and they then reveal the more striking symptoms which have given rise to the common name for the malady. The roots are blackened and their outer layers are soft and easily rub off between the thumb and finger. Later in the same season even healthy roots darken somewhat but the outer layers do not peel off so easily. Moreover, late in the season healthy plants usually show new, while roots developing while diseased plants seldom produce new roots.

Control Measures

The principal control measures which have been found useful at the Dominion Laboratory of Plant Pathology, St. Catherines, Ont., are:

1. Practice a fairly long crop rotation. Strawberries should not follow a similar crop in less than five years if possible.

2. Avoid introducing the disease. When setting out a patch produce plants from a field which was free from root-rot the previous year. Then discard from these any plants which have blackened roots.

3. Protect the plants during winter by means of a suitable mulch. As soon as the ground becomes frozen hard, cover the rows with 2-3 inches of clean straw.