

NORTH AND SOUTH DAKOTA HORTICULTURE

MAY, 1938



Pergola, tulips and Chinese Elm in the garden of Mrs. Dana Wright, St. John, North Dakota.

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THE COWBIRD

by

O. A. Stevens



O. A. Stevens

The cowbird holds a unique position among our feathered creatures as the only species in North America which persistently shifts the care of its young on a neighbor. Perhaps we should be surprised that such a condition is not more common. There are several other species of birds which have similar habits. Parasitism is a very common feature of insect life and we might well say the same for human life. It is common also in plants. The

European cuckoo has the same habit of depositing her eggs in the nests of other birds. The cowbirds closest relatives are a half dozen species of South America. One of these builds its nest, three deposit their eggs in the nest of other birds. One will build a nest but prefers to take one ready made. The cowbirds are placed in the same family as our orioles which are expert nest builders.

The cowbird is found over most of the United States and Mexico, northward into southern Canada. During the winter the northern ones retire to the southern half of the United States. In their migrations they are more or less associated with other blackbirds. Their regular time of arrival at Fargo is just about May 1, though frequently one sees an occasional bird with red-winged or rusty blackbirds considerably earlier. They are much in evidence at first, but after nesting season they seem to disappear and are seen little except for the young which follow their foster parents for a time.

About one-half of the food of the cowbird has been found to consist of seed from weeds, especially pigeongrass and ragweed. Insects compose about one-fifth of the total and grain nearly as much. The birds are mainly beneficial in their food habits. Early explorers remarked on the association of the birds with the bison. Now they associate with domestic cattle. The reason for this has been the subject of much discussion and the modern idea is that the birds seek the grasshoppers or other insects which are disturbed by the animals.

Alexander Wilson, shortly after the year 1800, had found eggs of the cowbird in nests of eight species. This list has since been increased to more than 200. Chipping sparrows, warblers and other small birds are among the more common victims. Birds larger than the cowbird are also imposed upon. These include towhee, rose-breasted grosbeak, cardinal, red-winged blackbird,

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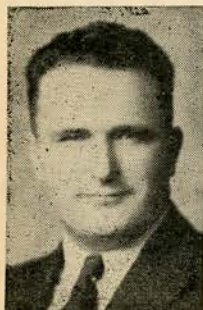
brown thrasher and meadow lark. Wilson reported that only one egg of the cowbird was found in each nest. Later records have extended this considerably. Two is quite a common number. One spring I found four in a nest of an oven-bird and

(Continued on page 59)



NEWSLANTS

Harry A. Graves



H. A. Graves

P. B. Rognlie has an interesting nursery located just south of the Esmond, North Dakota, townsite. Several of his apple trees have gone the way of many other apples these last years with the dry summers and cold winters. Of the hardy plums and cherries, Mr. Rognlie still finds the Opata at the head of the list for his territory. Dr. Yeager always recommended Opata as a good tree for the beginning home fruit grower to make a start with.

This variety comes into bearing early and bears good quantities of tasty fruit. Rognlie has a blue spruce seedling that is about the bluest spruce I have ever seen outside of a Koster. He plans on propagating this tree soon.

While in Grand Forks recently, I had a visit with Fred McKinnis of Emerado, Agent for the Great Northern at that point. Fred is a gardener in his spare time with tomatoes as one of his special hobbies. Last year he raised some plants of the Break O' Day variety that bore large fruit about the size and shape of baseballs. "Of course," said Mr. McKinnis, "I had only a few plants and I did plenty of pruning. He has been a member of our North Dakota Society for several years.

Mrs. H. O. Sauer has an orange tree growing in a bushel basket at Devils Lake. This tree is now 14 years old and has borne fruit for 12 years. The tree was frozen back badly one year and was cut back to 12 inches four years ago. 12 to 15 fruits are the usual number borne but on one occasion the tree carried 30 fruits at one time. My first orange blossoms, and in North Dakota in March!

A recent letter from Kenneth Garret of Kamiah, Idaho, tells of the use of Hot Caps in his garden. A former resident of Valley City, Garret is interested in North Dakota Horticulture and conditions here. He suggests cutting the tips from the top of the caps to provide ventilation when these plant protectors are used in areas where high mid-day temperatures cause burning of the plants unless some ventilation is supplied.

The value of snowtraps in the form of hedges, snow fences, or lines of farm machinery, to provide snow moisture for the garden, has been well known to many gardeners for years. However, few have any idea just how much water comes from a foot of this drifted snow as one finds on the downward side of such a trap. Observation made by weather stations have revealed that on the average, 12 inches of freshly fallen snow will yield 1 inch of water, or the equivalent of 1 inch

of rain. To determine the amount of water in 12 inches of such drifted snow, several 12 inch square columns of snow were taken from drifts on the south side of a Caragana and Buckthorn hedge on our Horticultural plots. This snow was melted and the water measured. On the average, each foot of the drifted snow yielded 4.29 inches of water. Four foot drifts yielded as much as 17 inches of water. Much of this moisture can be held on the garden by leaving the surface rough and open in the fall. Such additional moisture would be a welcome addition to the rainfall in any part of the state.

If you do not have some sort of a snow catch for your garden, why not plant a row of Caragana, Honeysuckle, or Buckthorn north and west of the garden plot this spring.

The following notes were received recently from F. L. Skinner of Dropmore, Manitoba:

The Crataegus family (Hawthorns) contains a number of hardy and ornamental shrubs that have been so far neglected to a great extent by western nurserymen. Possibly the reason for this is that seeds are rather slow to germinate and the plants on that account more expensive to raise than plants like Spiraeas, etc. Not only are the Hawthorns handsome when in bloom but many of them have showy fruits and the glossy foliage and red-brown twigs of others are quite ornamental. Bean in his "Trees and Shrubs Hardy in the British Isles", says, "The thorns have two, frequently three, seasons of beauty—in flower, in fruit, and in the dying foliage. Few genera, indeed, supply so many charming lawn trees."

The following species are quite hardy and give variety in fruit, foliage, and habit.

C. erythropoda, the Chocolate Thorn, has glossy foliage, glossy red-brown twigs and chocolate colored fruits. This also is a spreading shrub to 8 or 10 feet high.

C. chlorasarca, a small tree of more pyramidal habit than the other varieties, has large leaves of a dark green color and stout brown-purple twigs. The glossy black fruits are probably more ornamental than those on any other black berried shrub. This attractive ornamental is a native of Manchuria.

C. altaica has bright yellow fruits and quite finely cut foliage. This is a spreading shrub 6 to 8 feet high, native to the Altai mountains of Mongolia.

C. succulenta from near Lake Superior resembles the Scarlet Haw to a certain extent but the growth is very stiff and upright, the fruits are quite large and of a bright scarlet color.

C. sanguinea from Manchuria is one of the largest growing of the hardy Hawthorns becoming a small tree to 20 feet high and spreading to about 15 feet across. The red fruits turn quite soft as they ripen.



PRESIDENT'S CORNER

F. X. Wallner.



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

If the favorable reception of frozen foods by the consuming public continues, it will be necessary for each growing district to engage in the freezing process, in order that we can all obtain them. A few years ago a million pounds was frozen for food in this nation, while in 1936 the output was 53 million pounds and for 1937, it will be almost that much in vegetables alone. These processing plants are only located in a few favorable spots while the canning factories are spread around the nation, wherever fruits and vegetables are grown. At present the distribution of frozen products is very imperfect, as a few markets consume the entire output. But the latest report is that the pure food laws are being violated in misleading advertising. "Farm freshness captured", or "Farm fresh as those just picked off a bush," or "Farm fresh strawberries, four months out of season" or "Fresher than fresh", all misleading and with a phony ring, states the Florida growers, who shipped out 184 carloads of real farm fresh strawberries the first week in February. And the farmer with a truck load of farm fresh poultry, had no trouble convincing the public that the two year old frozen hens were not "fresher than fresh."

Five states along the Atlantic ocean, North and South Carolina, Georgia, Alabama, and Florida use about as much fertilizer as the other 43 states of the nation. Evidently the tomato and Buttercup squash seed we sent out to the Clark County Garden club brought forth fruit a hundred fold. Mrs. R. L. Keating, the president, in reporting on the results, states that everyone had large, meaty Pinkheart tomatoes with meat sufficiently red. The plants took up little room but produced many pounds of fruit. The Penn State were good producers, but there was a yellow mottled effect on the skins of the fruit, objectionable to some. The Italian red pear were the best and largest pear shaped tomatoes they had ever seen. They canned beautifully and made extra good tomato juice. Also the green ones made extra nice green tomato pickles.

Farmers and potato growers of Idaho are told that Maine is taking the potato market and that in the short time of 5 months intensive advertising, the Maine potato has caused the shipping of Idaho and other potato sections to almost cease. Two years ago the western lettuce growers plowed under a big part of their crop. Now they are plowing under one-third of the crop, in the hope that they will receive enough for the bal-

ance to save them from ruin.

Michigan fruit growers are advised to cut out or graft over all unprofitable varieties of apples, because big buyers will not take them at any price, even the F.S.C.C. has warned them they will buy only standard varieties of No. 1 grade, in big crop years. Varieties for the discard include Rambo, Pewaukee, Russet, Alexander, Bellflower, King David, Northwestern Greening and Winter Banana.

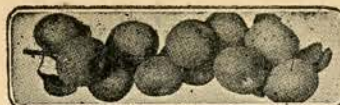
A new rabbit repellent that really repels, is announced, but it is not known if it is injurious to the trees. One hundred different solutions were tried but only 6 were found to be 100 per cent effective. None were poisonous enough to kill the rabbits. The one that did the trick was a wood alcohol-resin mixture and they are waiting to observe the summer effect on the trees, before advising its use.

Washington state's oldest apple tree received a thorough bath and scrubbing, trunk and limbs scraped and soaked and a liberal supply of fertilizer applied to its roots. The old tree was planted in 1825 by a Hudson Bay officer who had brought the seed from London. Horticulturists from several counties joined in this interesting ceremony and the study of brown rot and other diseases and insect pests.

One section in Texas expects to market about 1,000 car loads of early Bermuda onions by the 15th of April, but the rains have caused considerable damage by blight and thrips. This is just a reminder that those crates of onion plants we receive in the north now are usually covered with onion thrips and blight that spread to clean fields of onions that are raised from seed. Also the cabbage and other plants may be diseased and covered with aphids.

Spring fever and the urgent need of mending fences back home is the reason that many of the law makers are not at their desks in Washington. Many are also called home by the head of the house demanding that they put in the back lot to potatoes and other vegetables and to plant a few shrubs, fruit and shade trees.

In 1935 only a quarter acre of the new mildew resistant cantaloupe No. 45 was planted in the Imperial Valley. A fall crop was grown for seed so that in 1936 they were able to plant ten thousand acres of this new variety, in 1937, 20,000 acres, or about 90 percent of the acreage was of this variety that was vine ripened and stood the 9-day trip to New York in good shape. A 10-year breeding project by Federal and state Horticulturists crossed Hale's best with an inedible mildew resistant India melon, back crossing on Hale's best and selection of several generations, brought about this new wonderful melon that is now grown successfully where a short time ago the disease had about destroyed the melon industry.



FRUIT REPORT

F. M. Schwab



F. M. Schwab

Zachman Pear—This is another pear that is perfectly hardy here and suffered no injury at all during that cold winter. We had a number of these trees in the orchard during that bad winter and they have made a good healthy growth since and bore a good crop of large, high quality pears last year; this pear ripens in mid-season.

The Zachman, Tait No. 1, and Hanson hybrid pears are the hardiest we have found in our 35 years of fruit raising, of course, the Hanson hybrid is only good for an understock for top working high quality or more tender varieties of pears; for this purpose it is an ideal tree, as it is so hardy and such a vigorous spreading grower.

We have about 12 other varieties of pears on trial here, mostly from Canada, which we mostly procured through a northern Minnesota nursery. We do not know much about these new pears yet, as they are all top worked and are just beginning to bear.

Sweet and Sour Cherries—Some of our standard, sweet cherries were entirely killed. Our hardy sweet cherries and sour cherries also suffered severely, but not as much as was expected, a few trees were killed, but the rest are coming back again.

Plums—Our Sapa were practically all killed. Some LaCrescent and Elliot were also killed, while others came through with more or less injury and many suffered no damage at all. Opata did not suffer at all. Our blue plum seedlings also suffered more or less injury, but many of them were not damaged at all. Nearly all other hybrid plums suffered more or less, while many were not hurt at all. Plum Minn. No. 113 we find to be no good. It is a vigorous tree, but it does not bear, and the very few fruits it bears are worthless. Plum Minn. No. 161 is a good variety. This is a hardy and vigorous tree and a heavy bearer of large high quality, good looking plums.

Waneto from South Dakota is one of the best all around plums; this did not suffer at all.

Minn. No. 218 is a large, high quality, good looking plum and a good bearer. We only have grafts of this sort bearing and don't know how this variety would perform on its own root. We had a number of Minn. No. 195 grafts growing, but they nearly all froze off and we think this sort is not hardy, it does not appear to be vigorous either.

Compass cherry also suffered. We are trying

out the Sugar Prune from the west coast and have grafts growing in trees, these are making a vigorous growth and appear hardy. This prune as grown on the west coast, has a sugar content of 24 percent. If this prune contains the same amount of sugar when it bears for us we will have something very delicious.

One of our blue seedling plums No. S52 also has a high sugar content and is the sweetest blue plum we ever tasted. Minn. No. 135 plum is a medium to large fruit of good quality and is a good bearer.

Apples—Our Starking, Golden Delicious, Grimes Golden, Staymared, Delicious and Richared trees that stood on root grafts all froze to the ground, but we have grafts of all of these and other semi-hardy varieties top worked onto hardy stock and most of these are in good shape. All these varieties possess about the same degree of hardiness, in other words they are tender.

The Folwell, Anisin, Perkins and Erickson also suffered severe injury and some of these were nearly killed. The Haralson, Duchess, Hibernial and Redwing were not damaged at all. Redwing, however, is of no value here, as it does not bear, and the very few apples it produces are of poor color and of very low quality. It seems that Cortland and McIntosh suffered no ill effects. Minnehaha is of no value here as it only produces a few specimens now and then. The foregoing described injury to fruit trees was all caused by that cold winter of 1935-36; and prior to that time no such damage occurred.

Well, we have all learned a valuable lesson in particular as to the hardiness of the different varieties etc; and we should all gather up new courage and start all over again, knowing that no such catastrophe may befall the fruit industry again for another 100 years.

Indian Summer Raspberry—This is of no value here as it ripens its fall crop in October when hard frost occurs, and the berries are small and crumbly.

(Continued next issue)

N. O. MONSERUD

Landscape Architect Tree Surgeon

Office—First National Bank Building
SIOUX FALLS, S. DAK.
PHONE 555



SECRETARY'S CORNER

W. A. Simmons



W. A. Simmons
made."

From his home in Portland, Dr. H. C. Cooper, long President of the N. D. State Hort. Society writes: "Spring, with its blossoms, has come to Oregon. All's well with the Coopers, Donald is married, Jean graduates from college next spring and Doris entered college last fall. I am still hybridizing peonies and gladiolus. My objective in glads is a small, ruffled, lacinated and blotched type. Some resemble butterflies. A little progress has been

Mr. Elmer Reeves of Waverly, Iowa, is a very old and much loved friend that many of our members know as he formerly attended many of our meetings. His papers were always valuable and most interesting and were always the first thing I looked for and read, on receiving the Iowa report. Under date of March 11, he writes: "Just finished reading the last copy of Horticulture: I always like the notes on birds and the story of the Meadow Lark just suits the character of the bird. My daughter, who is teaching in the S.E. corner of Iowa writes that the Meadow Lark often stays there during the winter and also that a Cardinal almost splits his throat in singing just outside her window, each morning. Iowa has need of conserving moisture as well as the Dakotas. The past 4 years have been almost ruinous to those of us who depend on crops for an existence. Newly planted trees failed and the plantings of small stuff was a dismal failure and even fields of corn that promised a bountiful crop up to the first of July were a complete failure. As to Christmas trees, the Government should control the cutting of the young trees as many of them are taken from Government land and are not selected for the future of the timber. Also those trees compete directly with those grown in nurseries for the purpose of use at Christmas. The lavish waste of those brot from the forest, completely demoralizes the market and few profit from the outcome. Iowa is not as good for potatoes as parts of the Dakotas and in the past few years we have had no good potatoes. The ground was too dry and hot and many gardens yielded less than a tenth of a crop. I agree with you on the quality of the McIntosh apple. Its near purity of blood makes it a good breeder and you probably know that its parent was a French variety that for a long time was grown from seed by the early settlers of eastern Canada where it was known and worshipped as La Belle Fameuse. So far we in

Iowa have 3 seedling apples that I consider well worth planting in all orchards. Joan, which is a large fruit of good quality and will keep to early winter, is a young and abundant bearer. This is a cross of Anisim and Jonathan. Secor, a Salome-Jonathan cross, is a large fruit of light red and mottled appearance and good quality, keeps to mid-winter. Edgewood is of the same parentage and is a large fruit that will keep longer than Jonathan. These seem to be the best we now have but we have thousands of seedling apples about ready to show their worth. With the experiments now in progress in the Dakotas, Minnesota and Iowa, the next generation is sure to have an abundance of valuable fruits, but the attention of some one should be turned to the production of an apple earlier than any we have and of good color and quality, which most of our early varieties do not have. None of them are good enough to make cider. Herbert Osborn's book on Entomology should be a leader as he was pretty good on bugs when he was my teacher some 57 years ago and he has been at it all that time. The last time I saw him he was in his office in Columbus, where he had just received a shipment of insects from South America. We now have a pretty good list of plums and have about discarded those grown just a few years ago, but no doubt still better ones will soon come to us. I now have a row of Dr. Hansen's apricots from which I expect much and hope to have fruit soon. Dr. Hansen has done a prodigious work and is still in the lead. All credit to him and for his work and influence."

The regular summer meeting will be held at Vermillion on June 11th and 12th. The Vermillion Garden club will put on a flower show at that time which will be fine, as usual. A program of talks by the local and visiting horticulturists will be put on in the afternoon of the first day, with a banquet in the evening. On Sunday, the 12th, a tour has been arranged, going first to Elk Point; crossing the Missouri river to Ponca, Nebr., we will drive thru the park, then on up to Yankton, where the remainder of the day will be spent, our friends the Gurney's guiding us to the beauty spots. We hope as many as possible will attend.

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BOOK REVIEW

Mrs. F. Briley

Gardening Indoors, by Rockwell and Grayson.
Published by The MacMillan Co., 60 Fifth Ave.,
New York. Price \$2.50



Mrs. F. Briley

When you begin to read this book you soon become reminiscent, for who does not remember some good points of the good old days, and one of the best was mother's collection of house plants. How pleased she was when some neighbor had given her some "slips" or when she had discovered a new one, growing on one of her choice plants. Those were in the "horse and buggy" days, but unlike that means of locomotion, house plants are coming back to homes of all ranks and conditions. New conveniences have made it easier to grow plants in the house, such as improved heating, air conditioning devices and even artificial light. This kind of gardening has several advantages. The arrangement of plants is not usually intended to be permanent. It is often possible to create an arrangement at an expense for material no greater than would be required for an order of cut flowers. The plant arrangement will last for weeks and make a decoration much more satisfactory than the cut flowers would be. The book contains a great many illustrations of artistic arrangements of plants, such as stairway windows, various kinds of windows, under water gardens, etc. Today, no book on gardening is complete without a chapter on bugs and plant diseases, and "Gardening Indoors" has not failed us. Mother's only cure for a pest or a sick plant was a great dose of tobacco in some form, but much more efficient and effective cures are prescribed in this book. Mother's collection of house plants was confined to a collection of various kinds of geraniums, begonias, a heliotrope, a few fuchias, some vines and, if the gods saw fit, a rose. For oddities there was an umbrella plant and an old sea onion. Once she weakened and actually paid money for two marvelous "new" plants, a Martha Washington and a hydrangea. Over ninety pages of this book are devoted to "What there is to grow", and there is a very long list indeed. There are so many interesting plants that they are listed and discussed in groups, such as flowering plants, foliage plants, bulbs, cacti and other succulents. There are so many kinds of geraniums that collecting them is a hobby of some indoor gardeners now days. The last chapter in the book gives valuable information on how to keep gift plants that come to us from the green house in prime condition, but only too often, without the

proper care, they present a pitiable condition in a few years. If you are going in for house plants, you will find no more helpful and interesting information than in "Gardening Indoors."

The brainless cockroach, generally considered a pretty worthless citizen, is now serving as a martyr to science. Research scientists of the bureau of Plant Industry of the U. S. Dept. of Agriculture are using millions of cockroaches in testing poisons for general insect extermination. While the cockroach may be dumb, he has the strongest heart in the insect world and hence is invaluable as a guinea pig. What will kill him, will kill most any insect known.

—The Country Home.

For persons living by the low cost food guide with its relatively large quantity of cereals and flour to be consumed each week, apple fritters or apple dumplings offer unusually attractive means for utilizing some of the apple supply. Other inexpensive apple dishes include brown Betty, Tart, pie, turnover, cobbler, apple upside-down cake, scalloped apples and apple tapioca.

—U. S. Dept. of Agriculture.

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MANITOBA NEWS LETTER

W. R. Leslie



W. R. Leslie

Each year many failures or poor catches in propagation are directly traceable to unfavorable conditions under which scions had been stored prior to use.

The two factors, temperature and moisture conditions of storage, are equally as important to success as propagation technique.

The most satisfactory environment has been on the cool basement earthen floor, covered with about two inches of DAMP moss. At the Morden Experimental Station scions so stored have been kept dormant until August and then given a moderate stand of buds. It is very important that the moss be NOT wet. The temperature may vary considerably under such conditions but a fairly constant temperature, ranging between 30 and 40 degrees F., is preferred. Should such conditions not be available sand or sawdust may be used instead of moss. Buried out-of-doors on the north side of a building has also been satisfactory. A refrigerator or ice-house may be used if available.

Parcels of scions should be opened on arrival and if not used immediately, stored as indicated. Scions should not be stored in large bundles as the inner ones frequently either dry out or become mouldy. Should there be any serious delay in transit and the scions arrive in a dried out, blackened, mouldy, or badly sprouted condition it is well not to use them.

When grafting, scions with two or three buds are preferable to longer pieces. All cut surfaces should be waxed as soon as the graft is completed.

The most favorable season for top or crown grafting, or spring budding, is when growth commences in the stock. During normal years this usually occurs early in May. Buds swell and show considerable green colour, and the bark of the stock "slips" readily.

Pruning of fruit trees is done when the condition of the ground affords good footing.

As the snows melt, the resulting water is let off through drains, if there is danger of freeze-up. If the weather indicates a prolonged thaw, the snow waters are blocked back for a time. The aim is to have as much of this precious water as possible sink into soil cracks, in autumn dug holes for spring tree planting, and into the cultivated soft soil of garden and border. Where a body of water accumulates, freezes and remains solid for a week or more, lawns and tree roots may be smothered by lack of air under the ice.

March is the dangerous month for sun-scalding of Arborvitae and other evergreen foliage. A screen of brush, slats or cornstalks may be placed on the southwest portions to protect them from the hot afternoon sun.

Gladioli bulbs are fumigated for three or more weeks against insects. One ounce of fresh naphthalene flakes per 100 bulbs is placed in tight paper bags. Air-tight tins are not suitable.

As soon as the soil dries, newly set trees and plants in the perennial border, rock garden and berry patches are inspected. Any subjects that have heaved by the frost are pressed back into place.

All nursery stock, seed, sprays, fertilizer, and equipment are ordered promptly from nurserymen, seedsmen, and supply houses. There is danger of disappointment by putting off the placing of orders. This is especially the case with new varieties and novelties.

Seed of long season crops, such as onions, tomatoes, peppers and egg plants are sown.

Flats are put in good repair. Labels are painted and printed.

The spacing of fruit trees, bushes, and plants is often discussed. Several considerations are involved. Among these are size of plot, kind and density of surrounding shelter, the soil type, precipitation, exposure, variety of fruits and spraying. A common fault in the prairie home fruit plantation is bunching too many individuals into a small plot. There is some advantage to close setting in the early stages where the plants offer mutual protection, but soon cramping takes place, inducing tall, leggy, weak trees. The prairie fruit tree is best when retaining a bushy form. Given generous spacing, it survives dry seasons much better than when in heavy competition with the roots of its neighbours.

In commercial orchard areas it is common to see apple trees 40 feet apart. Usually there were interplant, or filler, trees between for the first 15 or 20 years. The fillers were cut out as the permanent trees could benefit from their root room. The prairie grower is the opposite to willing to remove the filler tree that is in good bearing, so it is foresight to use only a short-lived sand cherry hybrid or bush fruit as an interplant among tree fruits.

At the Morden Experimental Station it is thought well to have apple and pear rows 20 to 24 feet apart, plums and apricots 18 to 20, sand cherry 12 to 18, grapes 9 to 10, raspberries 6 to 8, currants and gooseberries 6 to 8, and strawberries 3 to 4 feet.

It is an advantage to run the rows north and south so that the best use be made of the sunlight, which will move from side to side over the row rather than along it.

(Continued on page 58)



BEEKEEPER'S NOTES

J. A. Munro

Spring Management



J. A. Munro

Reports received of late from beekeepers indicate that the winter loss of colonies has been somewhat heavier than usual. Such losses as have been reported are more the result of unsatisfactory conditions last fall than to any other cause. It will be recalled that the nectar flow, for the most part, tapered off early, with the result that brood rearing slowed down and honey stores were diminished. This meant that many colonies went into winter quarters light in stores and with too high a proportion of old bees.

To offset these losses, beekeepers will do well to re-stock the empty hives with package bees. The packages should be installed in their hives preferably before May 15 to give the package colonies a chance to build up to proper strength for the main honey flow which begins in the latter part of June.

The question naturally arises to the beginner, "What is the best size of package and where may packages be obtained?" Most of the packages are of the two- and three-pound sizes. For this part of the country, the two-pound size of package has proven the most satisfactory. Such a package consists of two pounds of bees (8,000 to 10,000 bees) in a screen mesh cage, accompanied by a queen bee with her attendants in a smaller cage. The package is supplied with a feeder tin of syrup to feed the bees for their journey from the shipper. Most of the package bees and queens are shipped from southern states. The addresses of these shippers are listed in the advertising columns of the "American Bee Journal" or "Gleanings in Bee Culture" or other bee magazines. Prior to June 1 the price of the two-pound packages with queen is \$2.45, plus express charges. After June 1 the price is reduced considerably.

The care and attention given package bees upon arrival is important. The beekeeper should, first of all, examine the package before taking them from the express office, and if they have arrived in bad condition he should promptly report the fact and put in a claim to the express Company for an adjustment.

Never leave the packages of bees setting out in the hot sunlight. They should be shaded and protected from rain or other adverse conditions until they are installed in hives. Before placing

them in hives it is a good idea to brush sugar syrup (one part sugar to one part water) over the screen of each cage. After feeding upon the syrup the bees will be in better condition to release into the hives.

Most beekeepers install the package by placing it inside a hive containing four or five combs which have some honey and pollen. After removing the lid, syrup tin and queen cage from the package the bees will take care of themselves for a few days without further attention (except for prying the piece of cardboard or screen from the end of the queen cage and replace the cover on the hive). In the course of three or four days the empty package should be removed from the hive and the space filled with combs.

Not all beekeepers follow the same procedure in installing packages. Some beekeepers shake the bees from the cage directly into the hive and release the queen immediately. This is usually not as safe a method as the one described.

To prevent drifting, the packages should be installed in late afternoon or on a cloudy day. Nothing is more detrimental to the welfare of the packages than to have serious drifting occur. Drifting is simply the undue strengthening of some colonies at the serious expense of others. It is easier to prevent drifting than to try and remedy conditions after drifting has occurred.

Judging from the number of inquiries received this spring, it is evident that there is a renewed interest in beekeeping taking place. There are areas where beekeeping could be developed to advantage where as yet only a start by a few beginners has been made. Several particularly glowing reports of honey production have come from points along the Missouri River in western North Dakota. This area, although not as well known as the Red River Valley section, has excellent possibilities for the development of commercial beekeeping.

MANITOBA NEWS LETTER

(Continued from page 57)

The distance between individuals in the row is of less importance but with tree fruits the permanent tree may well be placed equidistant to that of the rows, or 20 to 24 feet. Grape plants are set 6 to 10 feet apart. Bush fruits are usually given 6 feet in the row, raspberries 1½ to 3 feet, and strawberries from 1 to 2 feet.

Many thousands of years ago the climate within the arctic circle was so warm that palms and magnolias grew there, and the shores of Greenland were similar to Palm Beach.

—Fact Digest.



NOTES ON TREE PLANTING

C. B. Waldron



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Accepting the common observation that those least in need of sermons are the ones most likely to attend church, we hesitate to add anything to all that has been said about trees and tree planting for the reason that the readers of this publication already know the whole story. We thought we did a few years ago but since then nature has seemed to become cranky and cantankerous and has forced us to revise our opinions. Not only have we grown

older and wiser in our tree lore but the tree plantations also have grown older and have told their story which is not often cheerful and frequently pathetic or even tragic.

To one who has lived on the prairies nearly half a century and has devoted all of that time to the cause of tree planting, the situation is admittedly somewhat discouraging but not hopeless.

In earlier days when we once got a tree plantation established, we considered it a permanent accomplishment as human affairs go. We now know that in the measure that conditions for tree growth is unfavorable that the life of trees is shortened.

If we are to have a good grove or an effective windbreak as a continuing institution, we may as well decide to make a new planting every twenty years as forty years seems to be about the life span of the average plantation.

We have made mention of farm groves and have planted a few but, except under unusual situations, we would never plant another. The visions that we had of a constant fuel supply, as well as posts and poles from a five acre block of white willow, have gone glimmering.

A shelter belt will furnish just as much fuel, which may be considerable as the trees mature and have to be moved while at the same time it is affording protection to our buildings, gardens and crops.

We have all noted that shrubs, even as large as those of the plum and chokecherry, endure the drouth better than most trees. Since these are also an essential part of a good windbreak, we may well include them in all of our planting.

Long before this, most of you have been advised to plant Caragana as the north row of a shelter belt. With us the honeysuckle does as well. Two rows of elm trees growing on the south side of a honeysuckle are doing much better than trees not so situated. The hedge throws a heavy drift of snow among the trees each year. Next to the outer hedge, and about ten feet away, a

row of Russian Olive may be planted to advantage as it is drouth resistant and of bushy growth.

Ten or twelve feet further in we may plant a row of Chinese Elm and native Ash, alternating, with the trees about six to eight feet apart. This is further apart than we would place them if we were growing the trees for poles.

Another row can well be made up of the American Elm and Ash planted in the same manner. The way the elm, a supposedly moisture demanding tree, has withstood the drouth is a surprise to most of us. We may plant a row of wild plum and chokecherry on the south to doll up our windbreak or, as soon as we get the mortgage paid off a row of Black Hill spruce.

In any country where men are likely to try to make a living, this shelter belt will last for many years and will be a blessing all of its days.

THE COWBIRD

(Continued from page 50)

as high as seven has been reported.

The reaction of the host to the intrusion varies considerably with the species. Many of them seem to pay no attention at all to the strange egg. The catbird and robin are reported to throw out the cowbird eggs. The yellow warbler has often been observed to cover over the foreign egg with a new nest bottom. The viroes, redstart, and yellow-throat sometimes do the same. Often birds desert the nest if the cowbird lays first. The cowbirds' eggs are about five-eighths of an inch long, thickly specked with reddish-brown and gray. Their period of incubation is about ten days which is shorter than that of the other birds. The young cowbird grows rapidly, usually at the expense of the other young, which are smothered, starved or pushed out of the nest.

Cowbirds were considered polygamous by the older writers. However, Dr. Herbert Friedmann, who has published an extensive monograph on the group, found that each pair had a definite territory and there was evidence of not more than infrequent double matings. Since his book was written the returns on banded birds have indicated a remarkably strong attachment of the cowbirds for their summer homes. My own results have shown a high percentage of returns. While the birds regularly appear about May 1, it is May 15 or 20 before they visit the traps and then they are present daily. They are such persistent feeders that various bird banders have carried them several miles away only to have them come right back. Recently Mr. W. I. Lyon of Waukegan, Illinois, has been experimenting by shipping them long distances and has had still more astonishing results. Not only did birds shipped back to the southern states come back to him, but also some shipped north into Canada.

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SPRING SURVIVAL

W. E. H. Porter
Hansboro, N. D.

My conscience prompted me to write enclosed contribution after reading the April number of our magazine; it is so stimulating and alive with pep. I think that tho doubtless we are all enthusiastic enough in our home gardens, we are too prone to be indolent when it comes to letting others know what we have and what we are doing, thru the medium of our magazine. I have been conducting a series of talks on hardy perennials and gardens in general (to sugar coat the pill for the public), in our local paper, the Turtle Mountain Star, of Rolla, during the winter, 9 in all and I must say that our local Editor, Mr. Mott, has responded nobly, with necessary publicity. I have got the agency from Lannon Quarries, Beaver Dam, Wis., for garden statuary, gazing globes, sundials, nymphs, animals, etc. The first gazing globe I showed, I sold yesterday. Really we may get civilized yet, in North Dakota. Am trying out about 70 new seeds this year; most are from Thompson and Morgan, Ipswich, England and some really good things from De Giorgi Bros., Council Bluffs, Ia.

Looking over my perennials, those of known hardiness such as the Lychni, Dianthi, Aquilegias, Delphiniums, Penstemons, and others that one had placed in Q.E.D. (which was to be proved class), I was pleased to note today, April 8th, a survival of 100 percent, outstanding border plants. Erodiums supracanum, macradenum, and chrysanthemum, (probably most of erodiums are hardy in North Dakota), also new dwarf Antirrhinum (magic carpet) mayus X molle. Alyssum montanum, a grey leaved evergreen—not even a leaf blistered, the lovely but little known dwarf fern like Pyrethrum ptarnicaeflorum (why not call it silver feather), its relation Pyrethrum aureum is known as golden feather. The annual all summer mauve (blue brocade) Asperula azurea has proved a hardy winter annual. Malvo moschata (pink musk mallow) has come thru in toto for the first time and let us all remember that tender looking kenilworth ivy-linaria cymbalaria (evergreen) is a perfectly hardy perennial in N. D., only requiring a little shade in summer. Besides purple there is a white variety, alba. Spring crocuses are now peeping, about two weeks later than Crocus sativus (fall crocus), which did not blossom for me last September, but its vegetative spring growth has been coming apace for two weeks now in spite of hard frosts. What a splendid inspiration Mr. C. B. Waldron gives in his article "Preparing for Spring Beauty". My Pfitzer Juniper has proved very hardy for 3 years that I have had it and is the greenest thing on the place today. Also Juniper chinensis, var. au-

rem canary yellow, purchased and planted last September from the conifer man D. Hill of Dundee, Ill., is another bright spot in the garden and of course, a green mat of Phlox sublata.

That suggestion in Mr. Graves Newsletters, from Mrs. Wm. Vavra, of Lankin, for an exchange list is all to the good and here is my list, to start with:

- Achillea ptarmica, P. spreading double white rosette flowers, Yarrow.
- Asperula Azurea, A, mauve, an all summer Woodruff, very fine, d.
- Anthemis Kelwayii (Marguerite) P. fragrant fern like foliage, lemon yellow.
- Atriples Hortensis, (salt bush) 4 ft. hedge, red stems, pink seed pods.
- Campanula Rapunculus, (Siberian campanula), blue.
- Centaura Montana, blue, (the perennial bachelor's button.)
- Chrysanthemum Uliginosum P. the giant daisy, about 6 to 7 feet.
- Coronilla Varia, (New England Vetch) P. Tr. pink, fragrant.
- Dianthus Barbatus, B. Sweet Wivelsfield hybrids, all colors, double and single.
- Dianthus Nigricans, B. a red stemmed, leaved and flowered Sweet William.
- Geranium (English blue) P.
- Geranium Wallichianum, P. a Morden product spreading by roots, large blue flowers.
- Gypsophila Rojeka, (Baby breath) P. tall, pink.
- Hesperis Steveniana, P. blue-green etched foliage almost evergreen, fragrant Mauve flowers.
- Isatis Glauca, P. large leaves, yellow "baby breath" flowers.
- Lallemantia canescens, (Chinese mint) B. the new all fragrant, blue, plant, attractive
- Lychnis Chalcedonica, (Jewrusalem (Cross), P. bright red geranium like flowers.
- Malva Moschata (musk mallow), A. pink.
- Mentha (English mint) P.
- Papaver May Queen, P. spreading by roots, single pink.
- Penstemon Unilateris, P. one sided inflorescence, blue.
- Pyrethrum Aureum, (Golden feather) P. yellow scented foliage, daisy flowers.
- Saponaria Ocymides (Soapwort), P. Tr. pink.
- Sedum, a good variety.
- Viola, (Czar) P. purple, fragrant violet.
- Violas, of all kinds, P. Hybridized with English wild violet, fragrant, sometimes different colored flowers on same plant.