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NORTH AND SOUTH DAKOTA HORTICULTURE

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NORTH AND SOUTH DAKOTA HORTICULTURE

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NORTH DAKOTA STATE HORTICULTURAL SOCIETY NEWS LETTER, AUGUST 1931

C. B. Waldron, Fargo

The Annual Meeting of the North Dakota Horticultural Society was held as per scheduled at Jamestown on August 21-22.

Owing to the unforseen delay in the appearance of the Societies' publication North and South Dakota Horticulture, the members received no direct notice of the meeting.

However Associated Press dispatches were sent all of the leading papers of the state and WDAY of Fargo kindly broadcasted announcing the meeting during the four preceding days.

Owing perhaps partly to this and doubtless to other causes the attendance was not up to the average but all of the speakers listed were present and an excellent program devoted largely to a consideration of fruits and flowers but touching also upon vegetable gardening and plant breeding was presented.

The display of flowers and other horticultural products was chiefly from the vicinity of Jamestown but was large enough to reasonably fill a good size room.

The display by Mr. L. A. Livesay of Jamestown was especially large and fine and to him was awarded the sweep stakes in both flowers and vegetables.

A tour of the gardens of Jamestown revealed an astonishing number of very beautiful gardens and to those of us who remember the Jamestown of but a few years ago the progress made in horticultural interest is little short of phenominal.

At the business meeting the following officers were elected: President, H. B. Thompson of Lisbon.

Secretary A. F. Yeager of the Agricultural College and the one vacancy occuring in the list of vice-president's was filled by the election of Mr. Livesay.

The place of meeting for next year was briefly discussed and its selection left to the executive committee.

The absence of Mrs. Fannie Heath of Grand Forks because of serious illness was noted and the loss of her enthusiasm and able assistance was profoundly felt.

The absence also of our former president who is leaving for Oregon was felt as a distinct loss because of his expert knowledge of our most important flowering plants.

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EXTRACTS FROM THE DIARY OF A TRAVELLING MAN

W. A. Simmons

Billings, Mont: July, 3: Coming into town from the east, one's eye is attracted by the bill board advertising a fire insurance and real estate firm "We pay cash for ashes and sell dirt cheap."

Billings, July 4: Down to 38 this morning feeling as though a hard winter was upon us. In the afternoon it advanced 46 points as Wall Street would say.

Among other crop failures this year, must be included the wild roses, and we have missed their beauty and fragrance. Near Lewistown, in a protected valley beside a stream, I found several large bushes that had escaped the frost, and which were a mass of blossoms. The sight was so unusual for this year that I had to stop and admire it. Have always craved a wild rose hedge, but have no expectation of ever achieving it. Have collected quantities of seed at different times but never succeeded in making it grow. Nature utilizes grouse and other of our feathered friends for processing and planting these seeds with splendid success, but for mankind, it is a difficult shrub to grow from seed.

July 11: Under date of July 4, Mr. W. N. Craig of Weymouth, Mass. the lily specialist writes, "Lilies are very beautiful now, with regale, testaceum, candidul and numerous other varieties about at their best.

We had nearly ten inches of rain in June and growth on everything is remarkably luxuriant.

We had a normal June as regards temperatures and July, so far has been very comfortable with readings at nights down in the 50's and nothing above 80 to date, this is in marked contrast to the terrific heat which has prevailed over much of the country and we feel duly thankful.

We are obliged to mow lawns twice a week as growth is so rank this season." Fortunate New England! How thankful we would have been for even a quarter of that rainfall.

Sign on the highway, "Slow Men Working." From the length of time it takes to complete some highways, one is tempted to believe that this is the only kind of men employed on such work.

July 14: Yellowstone Park is very dry this year and one misses the green foliage that usually adorns its slopes. The roads that were under construction last year are about all finished and are a great improvement over the narrow ones we formerly traversed. Signs reading "Do not feed the bears" are now up in the park but are mostly honored in the breach as it is difficult to pass up these handsome little bandits. We witnessed a straight out shameless hold up today.

A car containing a young couple and an elderly lady had stopped by the roadside and its occupants were eating oranges, tossing the sucked out remnants to a bear. Soon the young couple alighted to get a snap shot of the bear, when the animal went to the machine, climbed on the running board and attempted to crawl in through the window. The frightened lady occupant was compelled to toss out an orange to get rid of the animal.

After seeing Old Faithful Geyser perform with the spot light on it, we retired to rest in one of the nicely furnished cottages and slept soundly under three heavy blankets and were grateful for the fire a nice young man built in the stove at 6:30 next morning.

After breakfast we walked out on the porch of the large store and restaurant building and saw some tourists feeding about 20 wood chucks. On going into the store inquiring for wood chuck breakfast food, we were sold some crackerjack. after which we returned to the porch and sat down on its edge. Soon the woodchucks swarmed around us, eating very daintly out of our hands. One unusually tame one jumped up on the porch and half crawled into my lap and even allowed me to pet him. as one would stroke a cat. They ate crackerjack. salted peanuts and candy till they were unable to hold another morsel then with difficulty managed to crawl back under the porch.

With a few more generations, these engaging little animals will become as tame as dogs.

It is nice that our government provides a place where all these animals are allowed to live in peace without fear of the terrible killer, man.

July 16: Bozeman, Mont.: The district around Bozeman is the only place in my territory where I have seen really good crops this year; wheat standing up as high as fence posts and lush alfalfa making a really good yield. Had a nice little visit with Pro. Starring at the Agricultural college, who was making great plans for entertaining the Great Plains Official Horticulturists who meet there in early August. Among those plans, was a trip through Yellowstone Park, including a visit to its holy of holies, the portion of the park that has been kept exactly in its virgin condition and from which all ordinary visitors are carefully excluded.

Was much interested in some gourds growing in the upper regions of the greenhouse, with fruit about the size and shape of Indian clubs hanging down at intervals.

Was pleased to hear him say he reads and enjoys our little magazine.

July 23, Fargo, N. D: It was a great pleasure to see Dr. Yeager back on the job, full of his usual health and energy. North Dakota is indeed fortunate in having this talented man whose vegetable creations have spread all over the country. It was also a great pleasure to open the July magazine and again read something from his gifted pen.

Was glad to see reasonably good moisture conditions around Fargo with lawns and flowers all in good condition. At this time, though about 4 inches short of their normal precipitation, they have received nearly ten inches of moisture, which is better than the last two years and will give them a reasonably good crop.

July 24: Had a brief visit with Dr. H. C. Cooper at Abercrombie, N .D. early this morning, brief because an early rising patient had a date with him at eight A. M. and a long drive home was before me.

He is back for the summer, but in the autumn all his peonies will be dug and shipped to his future home in Oregon, his Glads being already there, and we shall probably see him no more. He is probably his own creations severest critic, and always has some fault, imperceptable to me, to find with his lovely Glad Seedlings.

With one of his seedlings Peonies however, he is entirely satisfied, which makes me confident it must closely approach perfection.

He has given it no name, as yet, but is propagating it as rapidly as possible, and already has about 25 husky plants of it. He plans to continue to multiply it, and expects to have 2500 plants in eight years and may not put it upon the market until that time.

His philosophy of plant breeding is entirely modest and reverent. He says. "Such things as this Peony are direct gifts from God. He probably said to himself 'there is a poor fellow who has worked long and hard in an effort to improve the plant life of the world I created. I will just give him something.' God has been good to me." We shall certainly miss Dr. Cooper and his warm friendship, and hope God's gifts will include happiness also, in his life in his new home.

July 25: Home again after an absence of seven weeks to find the lawns about town, burned and brown, and very little of interest in the garden, for with the scant rainfall and the rigid sprinkling regulations, it has been impossible to keep things growing decently.

Our local volunteer weather observer says our total precipitation for the year to date has been about 5.29 inches and one must go back to 1894 to get a comparable scantiness of rainfall. Why do these dry years have to come in years of depression when people most need crops?

July 25: Broke the Sabbath today by making the long hot drive to Pierre. Had a very pleasant visit with our librarian, Mr. Chas. McCaffree, in the evening, and was very much pleased to see him actually getting fat, while doing the work formerly done by three men.

He is preparing to make a native wild flower garden near the edge of the lake on the State House Grounds and I predict the grounds will show a much improved appearance, as a result of his direction, as care of the State House grounds, is one of his many duties. He was very regretful at being compelled to be absent from our summer meeting, but promised to be with us at our winter meeting.

TULIPS

Thomas W. Hobart, Sioux Falls

Every fall for the last thirty years I have had to answer these two questions about tulips; viz; What is the best way to plant tulips and how should tulips be planted and why do my tulips commence to die out in two or three years after planting?

In answering these, I will give my own experience and observations over a period of forty years here in Sioux Falls.

PLANTING, because the white grub worm and several varieties of wire and other earth worms are over fond of tulip bulbs, I some thirty-five years ago began making all our out of door plantings of bulbs in sand.

In the old days of formal design or carpet bedding I removed all soil to a depth of six or seven inches, then spread evenly over the whole surface of the excavation a layer of sharp sand to a depth of two or three inches. In this I arranged the bulbs which were of the early double or single varieties (under color) in the desired pattern or design. Placing them about six inches apart and pushing them well down in the sand. When all were set they were evenly covered with another layer of sand making the whole depth of sand in the bed about four inches.

About one quart of fine bone meal and three or four pounds of pulverized sheep manure was added to each bushel of the earth that had been removed and well mixed, this enriched earth was then replaced. Because of the added sand this would raise the surface of the bed above the surrounding ground, which is an advantage as it was used to raise the center of the bed so that surplus water drains away preventing too much moisture around the bulbs. Too much water will cause them to rot, while they are resting or dormant in midsummer.

This sand planting prevents worm injury as worms will not work in pure sand and furnishes the drainage that helps prevent the summer rotting of the dormant bulb.

We had many beds so planted that gave excellent satisfaction and increased in bloom over a period of eight to twelve years, while otner plantings not using the sand died out in two or three seasons.

We follow the same general method at present though, as we now plant the beautiful Darwin, Rambrant, Breeder and Cottage tulips, so much in vogue. We do less bedding and more informal plantings among shrubs and perennials. We of course modify the procedure to the extent that in shrub or perennial borders we usually plant small groups of twelve to twenty or more bulbs of a single named variety or color in a group and these groupings irregularly throughout the border. For some of these we remove the earth in an area large enough to hold the whole number of bulbs and place the sand and otherwise plant as described above.

In some instances individual holes are dug with the trowel to a depth of six or seven inches, a teacup of sand is placed in the bottom, the bulb set in this and covered with more sand and the earth replaced. In this border planting these later blooming and taller growing tulips are set from six to seven inches apart and nearly always in color groups that will blend well with the shrubs or perennials with which they are planted that are likely to be in bloom at the same time.

Tulips do a whole lot better if not dug up and replanted each year, for if they once become established there is a much better chance of their increasing in number than when disturbed each spring. Also do not cut the leaves off in the spring when done flowering as the leaf growth after flowering is what prepares the bulb for the next springs flowers, so let the leaves grow and die naturally.

VARIETIES: the socalled early tulips are generally more dwarf in growth than the later varieties although many of these now grow to good heights. They come in nearly every color and color combination and because of their former even growth and blooming habits were much used in formal or carpet bedding a few years ago.

They come in both single and double flowered tulips, some of the double varieties rivaling the best peonies in size and color of bloom, some of these should be included in every planting as they have a beauty wholly their own.

The Darwins and Cottage types are planted so generally that they need little description. They follow the earlier varieties in time of blooming—having beautiful large cup shaped flowers on tall stems. They come mostly in solid colors. The Darwins running from light pinks to dark purples almost black, with beautiful lavendars but no yellows.

The Cottage type are much like the Darwins in season and growth but the flowers are more delicate in form and colorings, ranging from delicately tinted white through the pinks and yellows, many are very sweet scented. When you buy Darwin mixtures that contain yellow flowers, the yellows are always from the Cottage group.

The Rambrants are sports or breaks from the Darwins and because of their odd colorings and varigations are becoming very popular, they are very decorative.

The Breeder tulips are supposed to be close to the parent or original types. They blossom in May and while not as tall as the Darwins they produce larger flowers in many rare colors, including browns, bronzes, purples, blu-blacks, dull golds and dark lilacs all exquisitely blended. Include some of them in your bulb planting.

There are several other types not much planted now that I will not attempt to describe.

There is considerable disagreement among planters as to the best time to plant in the fall. My own experience over a period of nearly fifty years has been that there is some danger in too early planting especially in wet seasons as in the fall of 1929. The bulbs are liable to make too good a growth before winter sets in and the dormant flower bud starts out of the bulb (some of the bulbs in 1929 grew nearly to the surface of the ground) when this happens the flower bud freezes and is destroyed for the following season, causing the bulb to come blind. These bulbs will usually recover and flower a year later. When I have been able to plant just before freezing up I have always had the best of success. However, it is always best to get the bulbs into the ground as soon as you receive them, for they lose vitality very rapidly if left laying around and they never seem to recover from this. After blooming feebly one or two seasons they fade away and disappear .

The best bulbs having the strongest vitality arrive in early October and having had longer to mature being the last dug in Holland give much better results than those that are dug earlier and that arrive in this country in September.

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All of those present, who had not previously done so renewed their membership and before laying down the duties of secretary I wish to urge all members who have not already done so to send in their dues to Secretary Yeager and to make up for natural losses to include the names of as many friends as may be interested. We are told now and then that a single issue of the Horticulture contains information of many times greater value than the small annual dues. In my last official message to you I wish to emphasize that the one thing which has not ceased to grow and develop in spite of our much talked of depression is the love and appreciation of the fine things that horticulture gives us. The surest way to keep abreast of and profit by this worthy and encouraging movement is to keep in touch with those who are making horticultural history by keeping your membership in the state society.

THE WHITE-BREASTED NUTHATCH

O. A. Stevens, Fargo

When winter winds have driven most of our feathered friends southward, we have the best chance to become acquainted with a few which remain. The nuthatch is one which we may expect to find on any winter tramp through the woods. Large trees with rough bark and hollows in limbs or trunks are a requisite, however.

Few birds are more easily recognized. The nuthatch has a body about the size of that of a sparrow but he has a very short tail and short legs. His general color is white below and bluish gray above. The male has a black cap on the head and extending down the neck, but the female is marked there with more of a slate color. More characteristic than appearance is the behavior of the birds, for they cling closely to the tree trunks and very often are seen running downward. I almost believe they prefer to stand on their heads.

The Nuthatch's bill is fairly long, quite slender but strong and sharp. In feeding upon seeds his usual habit is to wedge them into a crevice of the bark while he hammers off their coats. Usually this crevice is at the top of a broken strip of bark and the bird stands above it with head downward while working. For several years past these birds have given us much pleasure at our feeding places. Squash seeds, we found to be taken readily. Often these were carried away to be tucked under roof shingles or in other crannies. One morning I watched a bird take in rapid succession, five seeds to five different places and in different directions.

At the window shelf we were able to study them more closely. Black walnuts were their favorite food and peanut next. Whether or not the peanuts were roasted seemed to matter little, though I thought they preferred them fresh roasted. An interesting observation was that the little bud (plumule) of the peanut would be left behind if convenient. One has only to make a personal trial to see why. This bud is bitter and not rich in oil like the rest of the seed.

Suet was eaten also, but comparatively little if peanuts or walnuts were at hand. Sunflowers were fairly popular, so it was evident that oily seeds were much in demand. Hemp was not taken but its round smooth seeds could scarcely be managed by such a bird. It was interesting too to see how much hungrier they were in very cold weather. In mild weather enough calories might be obtained from an occasional insect, but for really cold weather oily nuts furnish twice as much heat units.

Nuthatches are not musical. They are readily located in the woods by their characteristic note described as a nasal "quank" or "yank."

In the spring this is varied somewhat to a succession of notes of different quality which might be called a song. Their nests are located in hollows in trees and the eggs are white with fine brown specks.

Nuthatches are regarded as permanent residents in most parts of the country. We find them here at all seasons but probably they migrate as they are seen more abundantly away from the heavy timber during the migration seasons. We see also the red-breasted nuthatch occasionally during migration.

It will be difficult to find people who have fruit to exhibit at the State Fair. If you have samples be sure to enter them though they are not the best exhibitors.

Make notes now in your garden note book of changes that you would like to make next year.

Cut out the old raspberry canes as soon as you have harvested the last of the crop.

PINE RIDGE AGENCY DISTRICT FAIR

We hear of many counties that will abandon their County Fairs this year because they believe the money spent for the fair could be better used in some other way. This brings to mind what I saw at the Pine Ridge Agency Fair about a year ago.

The exhibits were offered by various Chapters organized within this District. The seven Chapters were designated by names and number. Many of the chapters had auxiliary chapters composed of the Indian women. The 4-H Clubs were organized within the different schools. There were about eight hundred active members in these chapters.

The prize money was secured from proceeds of entertainments given under the direction of the Government employees, up to the time of the Fair about four hundred dollars had been saved from these entertainments.

The garden seeds were bought from money obtained through the sale of articles made by the women at sewing bees. The seeds were purchased in large lots and distributed among the members. Minnie Brave, President of the Auxiliary No. 1 secured an exceptionally large amount of money from such sales and it seemed that the whole affair became a game of friendly rivalry. The Many Deeds Auxiliary of the Oglala Chapter grew beans which they sold and with this money they purchased an endgate seeder.

During the past five years the fields cultivated by the different families have increased in size from two to three acres to about twenty acres with some of them containing as many as sixty to seventy acres. Within the past few years practically every one has provided a root cellar for the storage of their truck crops.

Many people are of the opinion that all the land that the Indians have is bad lands and that their principal diet is horse meat as Will Rogers said about the Indians on the Pine Ridge Reservation, "They have eaten so much horse meat that they are wearing bridles instead of hats." This is not wholly true. They have some very fertile land and they produce good crops.

They exhibited large smooth potatoes that were free from scab and other diseases. Bliss Triumph, Cobbler and several white varieties were shown.

Frank Crown Horse had a fine exhibit of pumpkins, squash, watermelon and muskmelon. The watermelons grown in this section of the country are exceptionally sweet and the quality cannot be beaten.

Great interest was shown in bean growing. There were so many unusual varieties and they were well prepared. The Indian has learned to know the high food value of beans. He has also learned that they are a sure crop and can be easily stored.

The dried plum. choke-cherry and buffalo berry were commonly exhibited. One exhibit of dried deer meat was shown. Another thing not ordinarily seen at fairs was Indian turnips. The tops were braided forming long ropes of turnips.

All kinds of canned fruit was in evidence. The pickles, relishes and catsup was exceptionally fine in appearance.

Bread, cake and other foods requiring skill in cooking and baking were exhibited.

Another exceptional feature was the exhibits of soap and home tanned hides. They tan them with the fur on them and do very good work.

The chicken exhibit held the most important place as live stock. Some well bred poultry was shown.

The corn exhibits were a real surprise. These exhibits would compare favorably with exhibits shown at county fairs in the eastern part of the state Mr. and Mrs. Pete N. LeClaire exhibited Minn. No. 13 and DeWolffs Yellow Dent that would be a credit to any fair. Charles Red Cloud exhibited eight varieties of corn several of them being flint and one variety of sweet corn. Pop corn was exhibited by many.

It seems to me that if other people were as public spirited and would cooperate as the Indians of the Pine Ridge reservation that we could have good county fairs at a very low cost. It isn't so much how much money you spend on a fair as it is how much you can get out of the fair.

MEMORIAL DRIVES

Frank S. Kremer, Watertown, S. D.

The usual conception of a perfect highway is a smooth wide roadbed where travel can proceed unimpeded for an unlimited space of time. Distance being essentially something to be endured between one point and another. Modern invention has worked toward speed ,and industry has capittalized this factor until the automobile has become a matter of convenience and necessity. Our former conception of a pleasure vehicle has entirely vanished and now automobiles are sold principally upon their value as a utility to fill a social and business need. Public demand for highways has been unceasing and highway boards and commissions, contractors and engineers, goaded by a constituency of unlimited appetite, have lent every effort to expend the public money for more highways, and of necessity have looked almost solely to perfecting a splendid and serviceable roadbed. It is true that certain well marked and well improved highways lead to or pass by points of local, state or national interest, and all thanks and credit is due to far-sighted individuals and societies who have protected national historical spots and have preserved them as points of interest for posterity. The highway has come as a matter of necessity; it will be improved as a matter of necessity, but it will be beautified only by unselfish efforts of individuals. We must expect some reluctance at the opening of the public purse. We now find certain communities adopting the far-sighted policy of selecting certain highways, beautifying them and attaching to this beauty a sentiment. Thus, has come into being the beautiful tree bordered highways directly linking that sentiment with the late world war.

Whatever might or might not have been the result of the World War, in its political or International aspect; it seems evident to the casual observer that its artistic effects are almost revolutionary. Much of the literature growing out of the war is almost stark in its portrayal of character and events. We are still too close to our participation in that great conflict to form a definite and final conclusion, yet it seems proper to say that the present reading public is responsive to a story of war stripped of all its glory and romance. Readers seem ready to receive and accept a portrayal of a fiendish holocast which destroyed men physically and mentally and often devasted their hope beyond restoration. The literature of former wars in poem and in story developed the heroic and the romantic, and the public seemed to demand and require that the hero of a war novel have the brilliance and dash of a Lockinvar, but no such demand of characters depicting the late conflict. Now, the toil-weary individual torn from a happy, quiet life and thrown into a terrible conflict, with all its horrible consequences, seems to be the popular conception of the soldier in whom the public is interested. Had a Remarque, at the close of our Civil War, a tale to tell such as appears in "All Quiet on the Western Front," I doubt if a responsive public would have been found to accept it; at least, we do not recall such a portrayal of war in the popular literature of that day. As the written art of the war has changed, so also has the physical or structural, as expressed in our monuments. The popular idea does not seem to be to erect militaristic figures clad in the accountrements of war. A popular expression has been found by a grateful public in stately columns, beautiful fountains, handsome public buildings. Often there has been coupled with the monument an idea of serving the public by giving it something of use, as well as something of adornment.

There is a splendid sentiment in a grateful public beautifying a highway in memory of those who have rendered an unselfish service. The idea that mere man by planting many small and hardy trees, giving them help and assistance, and calling upon the natural forces of nature to join with him in bringing something of beauty for future years and future generations to view, enjoy and revere, should be commended for its far-sightedness and advocated for more universal adoption, South Dakota's level plains lend themselves to the artistic touch of man. The forces and processes of nature can be utilized in the creation of beauty to adorn, if only the effort will be expended. A well defined system of highways is now our heritage. The beau-

tifying of that system for posterity should be a work which a grateful public will readily assume, and before long, by the process of selection and extension, mile upon mile of beautiful tree-lined highways will be a reality.

Almost every community has points of local interest and pride. Here at Watertown we have upon the edge of our city beautiful Lake Kampeska and it seems natural to expect that a community should develop not one, but a series of splendid highways from its center to the Lake. What more glorious expression or a grateful sentiment could there be than in the beautifying of such drives or highways, so that all might know that this community honored and revered a nation's youth? Such a project should not be rare, — it should not be a project of just your town or of mine. It should be a project of communities everywhere. Perhaps, it should be a project that is never completed, but one to be continued on and on, each successful effort being a revival of gratitude and a rededication of all our present and future citizens to an ideal that is not lost, but lives on and on as the trees bud and unfold, then wither to repeat the process again and again.

The Fertilizer Review gives Professor M. F. Miller at the University of Missouri credit for the following poetry:

Hordes of gullies now remind us
We should build our lands to stay,
And departing leave behind us
Fields that have not washed away;
When our boys assume the mortgage
On the land that's had our toil,
They'll not have to ask the question,
Here's the farm, but where's the soil?

THE FOOD CHAMBER

A. H. W. Birch, Apiarist

One of the strangest things to the ordinary individual is that the feeding of bees for the winter differs from that of other live stock in that the bees are given their whole winter supply of food at one time, while other stock receive their rations day by day. Toward the end of September, the bees should receive sufficient food to tide them over the fall, the winter and the spring until the warm days come and they can gather nectar.

Some beekeepers feed their bees sugar syrup; others give them natural stores — honey. When natural stores are given, the Food Chamber method is usually employed. To get an idea of what the Food Chamber is, let us look at a hive and we will see that it is built up like a large building — story by story. The lower or ground story is called the brood chamber and it is here that the queen reigns. The stories above this are the ones in which the honey is placed by the bees.

As the first honey brought in at the beginning of the main flow is considered the best, and as the bees, which are sometimes confined to the hive without the chance of a cleansing flight for close on 22 weeks, must have the best, this honey is set aside for them. This story or box full of honey is called the Food Chamber.

The advantages of this Food Chamber method of wintering are: the market is relieved of a certain amount of honey and the messiness of pail feeding is done away with, for all that is necessary is to reduce the hive to one story and to give the food chamber.

Anyone thinking of wintering by this method should be sure that the honey to be given is of good quality, for if it is not of the best, it would be better to winter on sugar syrup and to give the poor quality honey in the spring when the bees can fly freely and get rid if its ill effects.

Such a Food Chamber which weighs 56 pounds will contain approximately 40 pounds of stores.

HORTICULTURISTS

J. B. Taylor, Ipswich

In these times of depression when things look a little blue, it seems like an opportune time for all horticulturists to rally around our cause and set an example to the world and try to lead them out of the land of darkness.

Horticulturists are always an optomistic set and always have their eyes set upon the beautiful future. They build-to-day for those that follow, always with the idea of making the world a better place. Walt Mason in one of his characteristic poems wrote this quite a few years ago and I believe I will always remember it.

"To be in line with worthy folk
you soon must plant an elm or oak,
a plum, or apple tree fair to see,
a single or a double tree.
When winter's storms no longer roll,
go get a spade and dig a hole,
and bring a sapling from the woods
and show your neighbor you're the goods.
What tho with years you're bowed and bent
and feel your life is nearly spent?
The tree you plant will rear its limbs
and there the birds will sing their hymns,
and in its cool and grateful shade,
the girls will sip their lemonade;
and lovers there on moon light nights
will get Dan Cupid dead to rights;
and fervid oaths and tender vows
will go a zipping through its boughs.
And folks will say, with gentle sigh;
long years ago an ancient guy,
whose whiskers brushed against his knee,
inserted in the ground this tree.
'Twas but a little sappling then,
and he, the kindest of old men,
was well aware that he'd be dead
long ere its branches grew and spread,
but still he stuck it in the mold
and never did his feet grow cold.
Oh, he was wise and kind and brave—
let's place a nosegay on his grave."

Take a peek over your neighborhood and you will see that those who are lovers of the beautiful are planning and continually planting and if we could all follow this example the world would soon be out of the dumps."

A horticulturist is generally a worker and there is nothing that we need to do more at this time than to work and work hard as there is no remedy that will stabilize affairs faster than constructive hard work. It builds a healthy body, eases the mind of worry. It promotes clean thoughts and builds better characters. And anyone who labors and builds is happier and much more contented. It is idleness that breeds dis-content and mischief and the only callous idleness makes is that it callouses the morals. When one is busy there is no time to think evil.

Horticulturists are necessarily thrifty and it is necessary these times tc all get our Scotch up so that we can dig ourselves out of the mire of debts and despondency and discard some of the foolish high ideas we have been having.

Those interested in planting are idealists and have a definite aim in life. They vision a complete planting picture, a garden spot that will produce beautiful plants as well as provide a better living and have in mind a country

flowing in milk and honey and an ideal place to dwell and where one can live in peace and harmony with one's neighbors.

No other class is in a position to offer to the world a better remedy and it is up to the horticulturists to set and be an example and continue this all essential work so that many will want to be likened unto them and all will be willing to labor for humanity and the advancement of the great northwest. We have prospered and the future will open up riches never dreamed of if we will only work for them, think clearly and act wisely.

BEANS AS A CASH CROP

W. G. McGregor, Central Experimental Farm, Ottawa, Canada

So popular are beans as an article of diet that among the many economic plants belonging to the legume family there is none so important from the standpoint of its use for human food. Owing to the unperishable nature of dry field beans they are marketed in all countries of the world and at all seasons of the year. To satisfy the demand of the Canadian people it requires annually about 1,500,000 bushels of which 150,000 to 200,000 bushels must be imported. Production in Canada on a five year average has been 1,212,400 bushels.

Productivity varies in a given locality with such factors as strain of seed, weather, soil fertility, prevalence of disease and date of first killing autumn frost. Tests carried out under the Dominion Experimental Farms have shown that beans may be grown successfully in any province of the Dominion although sections of Eastern Canada are more particularly adapted for a profitable extension of bean growing.

Beans frequently have no fixed place in the cropping system. They generally do best following clover sod such as sweet clover plowed down from the previous season's seeding. The land must be in good condition in every regard since the crop cannot stand "wet feet" or competition from weeds. Special machinery is not required. Seeding may be done with an ordinary grain drill with rows twenty-eight inches apart, using thirty-five to forty-five pounds of seed per acre. The ordinary corn cultivator is rearranged and used for bean work. A special attachment swung under the ordinary farm cultivator may be used for harvesting.

The small white pea bean types are more popular in the market than the larger types. Among the varieties tested at the Experimental Farm at Ottawa, Navy Ottawa No. 711 has matured on the average in 102 days and yielded well. Michigan Robust, though a little later, has given good results particularly in resistance to disease. Norwegian Ottawa No. 710 has been an outstanding yielder among the colored types.

The most profitable crops of beans are secured when careful attention is given to soil and plant food requirements, seed selection and culture. The average yield for the Dominion has been 16.7 bushels per acre. At the prevailing market price for beans this crop in comparison with other farm crops seems worthy of consideration.

LETTER RECEIVED AUGUST 6, 1931

Dear Sir:

Under our Missouri Apiary Inspection Law it is necessary that bees, including queens, be inspected twice during the season. Once in early spring and once in late summer or early fall. Of course this applies only to queen breeders or individuals who sell bees by the pound. As to other apiaries, it is only necessary that they be inspected once during the season.

I fully realize that a colony may be inspected in the spring, and readily become infested with Americal foul brood by fall. However, I also realize that under the conditions as they usually prevail, it is not possible to make more than one inspection of a yard per year.

Here in Missouri we only inspect the average apiary once per year and we could not ask additional requirements from beekeepers who do not reside in Missouri.

Very truly yours,
K. C. Sullivan, State Apiarist.

PREPARING BULBS FOR WINTER BLOOM

J. E. Park, Dominion Experimental Station, Rosthern, Sask. Can.

Bulbs for winter bloom should be potted as soon as they are received in September and October. It is true that some bulbs are held in storage by commercial growers and potted for late bloom but the amateur will be well advised to plant immediately and to depend on securing a succession of bloom by choosing varieties of different seasons. Specially prepared hyacinths and early varieties of tulips and daffodils for Christmas flowering may be had in September but the main supplies are not on the market until October.

A good potting soil consists of equal parts of loam well-decayed cow manure, leaf mould, and sand.

The size and style of pot used will depend to some extent on the personal preference of the grower, but a six-inch pot will hold six tulips, a five-inch pot takes six crocus bulbs, a four or five-inch pot is suitable for a single hyacinth bulb and a seven or eight-inch pot will be required for five or six narcissus bulbs.

In potting, leave the top of the bulbs level with the surface of the soil and press it firmly about them but do not have it too compact beneath them since this is likely to cause the bulbs to heave up out of the soil when root growth begins. Some pieces of broken crockery or small stones should be placed in the bottom of the pot to insure good drainage.

After planting, water the pots and set them in a cellar or darkened room where the temperature is from 40 to 50 degrees Fahrenheit. If the pots are plunged in sand they will require less careful watering and covering to a depth of two inches above the bulbs will help to prevent heaving. Potted bulbs are sometimes placed in a covered trench out of doors and brought in as required, but in prairie Canada it is more convenient and safer to nave them in a cellar after severe weather sets in.

After the bulbs are well rooted and there is evidence of top growth, they may be brought to the living room to bloom. To economize in window space a cellar window or any north window where the light is reasonably good may be used until the plants closely approach the blooming period. If kept too long in a dim light the plants become tall and weak-stemmed. If placed in too hot a place the buds will wither; therefore windows too close to a stove should be avoided.

After the plants are in bloom, if they are kept in a cool part of the room and not exposed to bright sunshine the blossoms will usually last for twelve to fourteen days.

If early single tulips are given good growing conditions until the plants ripen off, the bulbs may be stored in a dry place and bedded out the following October. While these bulbs may not give bloom equal to that from imported bulbs the following spring, they will continue to bloom for many seasons under prairie conditions. Most of the other bulbs forced should be discarded after the bloom has faded since our climate is too severe for them to live through the winter.

BARBERRIES AND MAHONIAS CLASSIFIED UNDER BLACK STEM RUST QUARANTINE REGULATIONS

Plant Quarantine and Control Administration, Washington, D. C.

July 29, 1931.

The rules and regulations supplemental to Notice of Quarantine No. 38, Revised, provide that no plants, cuttings, stocks, scions, buds, fruits, seeds, or other plant parts capable of propagation, of the genera Berberis, Mahonia, or Mahoberberis, "shall be moved or allowed to be moved interstate from any State of the continental United States or from the District of Columbia into any of the protected States, namely, Colorado, Illinois, Indiana, Iowa, Michigan, Minnesota, Montana, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin, and Wyoming, nor from any one of said protected States into any other protected State, unless a permit shall have been issued therefor by the United States Department of Agriculture, except that no restrictions are

placed by these regulations on the interstate movement of Japanese barberry (Berberis thunbergii) or any of its horticultural varieties." (Reg. 2 (a)).

For the convenience of nurserymen and others interested in the shipment of barberry and Mahonia plants, the various species and varieties concerned are classified below as to susceptibility. The classification is based on data obtained by the office of Barberry Eradication of the Bureau of Plant Industry. Further tests are now being made on the species in group D and they will be placed in their proper place in groups B and C as soon as sufficient experimental evidence is available.

The protected States referred to under groups B, C, and D, are the thirteen barberry eradication States named in Regulation 2 (a), quoted above.

AVERY S. HOYT,
Acting Chief,
Plant Quarantine and Control Administration

A—Berberis thunbergii and its rust-immune horticultural varieties

Permits are not required for any interstate movement of Berberis thunbergii or of the rust-immune varieties thereof under the regulations of the black stem rust quarantine, revised. The varieties so far as tested by the department are as follows:

Berberis thunbergii
" thunbergii atropurpurea
" thunbergii maximowiczii
" thunbergii minor
" thunbergii pluriflora
" thunbergii pluriflaro erecta

B—Berberis and Mahonia species or varieties sufficiently resistant to black stem rust for shipment into protected States.

Permits are required under the regulations of the black stem rust quarantine for interstate movement of the following species or varieties into the protected States and for such movement from any protected State into any other protected State.

Berberis beaniana
" circumserrata
" concinna
" "darwinii
" dictyophylla var. albicaulis
" edgeworthiana
" julianae
" "ottawensis
" potanini
" sargentiana
" stenophylla
" triacanthophora
" verruculosa
Mahonia aquifolium
" repens

C—Berberis, Mahoni,a and Mahoberberis species or varieties which are susceptible to attack of black stem rust.

Interstate shipments of the following species or varieties must not be made into the protected States or from any protected State to any other protected State and permits will not be issued for such movement.

Berberis acumintat
" aetnensis
" aggregata
" aggregata pratti
" alesuthiensis
" altaica
" amurensis
" amurensis japonica
" angulosa
" aristata
" arvensis
" asiatica
" atropurpurea
" atrocarpa
bergmanniae
" brachybotrydis
Berberis brachybotrys
" brachypoda
" bretschneiderii
" brevipaniculata
" canadensis
" caroliniana
" chinensis
" "coriaria
" coryi
" crataegina
" cretica
" declinata
" declinata oxyphylla
" diaphana
" dielsiana
" durobrivensis

Berberis emarginata
" "emarginata britzensis
" fendleri
" fischeri
" francisci-ferdinandi
" fuschioides
" ilicifolia
" integerrima
" knightii (B. xanthoxylon)
" koehneana
" koreana
" laxiflora
" leichlini
" lucida
" lycium (B. elegantissima)
" macrophylla
" moehanii
" notabilis
" oblonga
" poiretii
" poiretii latifolia
" polyantha
" prattii
" provincialis var. serrata
" pruinosa
" regeliana
" serotina
" sibirica

Berberis sieboldii
" sinensis (B. sanguinolenta)
" soulieana
" stapfiana
" subcaulialata
" thibetica
" umbellata
" van fleetii
" vernae
" viridis
" vulgaris
" vulgaris alba
" vulgaris asperma
" vulgaris atropurpurea
" vulgaris emargintat
" vulgaris fructoviolacea
" vulgaris japonica
" vulgaris lutea
" vulgaris macrocarpa
" vulgaris mitis
" vulgaris nigra
" vulgaris purpurea
" vulgaris sanguinolenta
" vulgaris spathulata
" vulgaris sheyalle
" vulgaris sulcata
" vulgaris violaccea
" wilsonae

Mahonia fremontii
" haematocarpa
" morrisonensis
" nepalensis
" nevinii
" swaseyi
" trifoliolata
Mahoberberis neubertii

D—Species or varieties of Berberis or Mahonia for which reaction to black stem rust attack has not been determined.

Interstate shipments of the following species or varieties must not be made into the protected States or from any protected State to any other protected State. Permits will not be issued for such movement this season pending final determination of the reaction of such species or varieties to black stem rust attack.

Berberis acuminata
" aemulans
" buxifolia
" californica
" dictyophylla
" diversifolia
" dulcis nana
" gagnepainii
" gilgiana
" henryana
" heteropoda

Berberis hookeri
" insignis
" levis
" parvifolia
" sanguinea
" thunbergi
Juliana hybrid
" tischleri
" virescens
" wilsonae "Autumn Cheer"
" Wilsonae "Fireflame"
" wilsonae "Firefly"
" wilsonae "Sparkler"

Mahonia fascicularis
" japonica (bealei)
" nervosa
" pinnata

Professor A. G. Ruggles, University Farm gives several methods in The Minnesota Horticulturist for ending the house of ants:

"First is a method said to have been used in the White House with great success. Make a poison bait using one pint of water, a poung of sugar, 27 grains of thallium sulphate, and three ounces of honey. These ingredients should be stirred together and brought to a boil. The vapor from the thallium sulphate is poisonous, so care must be taken while heating not to breathe the fumes. This bait may be used conveniently in pill-box ant traps. To make one of these traps cut a small square from each side of the inner flange of a pill box, place the cover on, but do not press it down. The ants enter through the holes in the flange. Several of these traps may be used to advantage, or the bait may be used on bits of sponge or small shallow dishes, two or three to a room."

"Another good bait may be made from one-half cup sugar, 1 level teaspoonful of arsenate of soda and one pint of water. A teaspoonful of honey will improve this formula. Dissolve the sugar in the water, add the arsenate of soda and boil until all is dissolved."

"Dusting powdered sodium fluoride in their haunts, around pantry shelves, will keep the insects away. Another simple method for destroying them is to soak small sponges or cloths in sweetened water, let them become covered with ants and then plunge them into boiling water."