

Volume IV

Number I

NORTH AND SOUTH DAKOTA HORTICULTURE

JANUARY, 1932

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NORTH AND SOUTH DAKOTA HORTICULTURE

Volume IV January 1932 Number I

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ANNUAL MEETING OF THE SOUTH DAKOTA HORTICULTURAL SOCIETY

Meeting to be held at City Hall in Beresford January 13th and 14th.

We have received letters from many of the members signifying their intention of attending the meeting, also giving titles for talks which they will give during the meeting. The following program will give a list of those who will talk.

PROGRAM OF MEETING

Wednesday Forenoon

10:00	Address of Welcome	C. B. Henrich, Mayor of Beresford
10:20	Presidential Address	Dr. N. E. Hansen, Brookings
10:40	Selecting Planting Stock	L. D. Martelle, Beresford
11:00	Nomination of Officers.	
	Appointing of Committees.	

11:20	The Future Apiary and Orchard	E. I. Underwood, Willow Lake
11:40	Cyclamen and English Ivy	Mrs. John M. Downer, Freeman

Wednesday Afternoon

1:30	Horticultural Problems of the South	Max Pfaender, Sioux Falls
1:50	Lily Growing	W. O. Simmons, Sioux Falls
2:10	Starting Gladiolus and Flower Seed	Miss Lydia Claussen, Beresford
2:30	The Relation of Chromosomes to Plant Breeding as Observed in Europe	Dr. N. E. Hansen, Brookings
3:00	Beautifying Church Property	Rev. W. S. Harper, Beresford
3:15	Bees and Horticulture	Andy McBride, Hawarden, Iowa
3:35	Farmers' Gardens	F. X. Wallner, Sioux Falls
3:55	Roses in Southeast South Dakota	Mrs. F. C. Berven, Centerville
4:10	Lawns	R. W. Vance, Pier
4:20	Beautifying the Farm Home	Mrs. Earl Dickerson, Irei.

Wednesday Evening

6:30	Annual Banquet. (Toastmaster to be announced later.)
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Thursday Morning

9:00	Gardening Experiences	H. R. Carpenter, Beresford
9:20	Learning to Know Our Wild Birds	H. S. Hilleboe, Sioux Falls
9:45	The Soil Science of Garden Making	Thos. W. Hobart, Sioux Falls
10:10	Some Good Vegetables	Maris Taylor, Ipswich
10:30	The History of Our City Park	Fred Boller, Beresford
10:50	Beautiful Home Grounds	J. J. Ostrowsky, Sioux Falls
11:10	Hardy Fruits for Lincoln County	A. J. Seubert, Sioux Falls
11:30	Planting	Carl A. Hansen, Brookings

Thursday Afternoon

1:30	Wild Fruits of Western South Dakota	E. A. Gates, Rapid City
1:50	Community Cooperation	Purley L. Keene, Brookings
2:20	New Varieties of Fruits	John Robertson, Hot Springs
2:50	Pleasing Perennials	J. B. Taylor, Ipswich
3:10	Beekeeping	B. J. Ginsbach, Sioux Falls
3:40	Gladiolus and Peonies	W. A. Sissons, Rosedale, Wis.
4:10	Living Christmas Trees	A. N. Shafer, Sioux Falls



THE GARDEN CLUB MOVEMENT

Since the origin of the Garden Club movement in the central west a few years ago we have experienced a rapid growth in the development and expansion of the movement. Evidently there was a great need for this type of an organization and the work which it has been doing, otherwise it could not have had so rapid a growth, followed by the development of the National organization. The National Garden Club of America, with offices at 598 Madison Avenue, New York, will furnish, upon request, considerable information of value to garden clubs. They have outlined suggestions for the organization of the club, what procedure should be taken, model Constitution and By-laws, the staging of flower shows, holding yard and garden contests, and many other valuable suggestions. Not only do we have the National organization but we have banded together in many of our states the local garden clubs into what is termed State Garden Club Associations. The primary object of these associations is to promote the movement and to hold State Garden Club Flower Shows, Yard and Garden Contests and to be a sort of clearing house for the local garden clubs.

The local garden clubs have taken as their main object the encouragement of gardens — flower, vegetable and fruit, but primarily the flowers. They have emphasized the value of home grounds beautification through the staging of local yard and garden contests and other publicity which they have been able to give to this movement. They have cooperated with other local organizations in promoting civic improvement, park and parkway development. In some cases where



Purley L. Keene

civic clubs have already been organized, since the development of the garden club movement, they have taken into their program of civic development and improvement some of the ideas and principles embodied in the garden club movement so that we have civic clubs now holding garden shows in communities where no garden club has been organized. The Yard and Garden Contest Association of America is an outgrowth of the garden club movement and has been doing considerable valuable work in promoting the beautification of the average home grounds, especially in our small towns and cities.

At the present time a great deal of interest throughout the entire United States is being shown in highway improvement. With the development of our National and State highway systems, with the growth and development of highway transportation facilities, people are traveling more and farther than was customary a few years ago. In making even business drives of any considerable distance people are beginning to note and to appreciate the views

along the highway. Several experiment stations have published bulletins upon highway improvement from a beautification or landscape standpoint. We have developed our highways along utilitarian lines, working for speed and economy of construction and maintenance, and have very largely neglected the aesthetic side. So frequently do we hear of people commenting on how long it took them to drive to such and such a place, and arguing about which is the shortest route between two cities. Speed seems to be uppermost in their minds. Is it not appropriate that we give some consideration to the improvement and preservation of the natural scenic beauty which parallels each and every one of our highways?

People are prone to gather flowers from trees, shrubs and herbaceous perennial plants, giving little thought to the future welfare of these plants, mutilating them and harming the beauty of the landscape. There is a large field here in the protection of our natural landscape along our roads and by-ways leading out from and into every small community. The protection and preservation of our native plant material is becoming especially important along our National and State highways and in the vicinity of our larger cities.

The question of Christmas trees is another problem which we must confront whether we desire to do so or not. We would not do away with the custom and sentiment which has grown up around the use of evergreen trees at Christmas time, but we must look after the source of these trees if we are to maintain the beauty of our landscape and preserve the



forests on lands hardly suited to any other crop. The living Christmas tree idea will undoubtedly grow from year to year. Local garden clubs can do much in promoting this idea. The staging of flower shows, the friendly rivalry between home gardeners of the same community in competing for the premiums and placings in the flower show, stimulate interest in the growing of flowers. Advertising flowers calls to our attention the need of flowers in every day life.

The interesting of boys and girls in the various phases of garden club activity is another very important side of garden club work. Through a campaign of education with our boys and girls through garden clubs, 4-H clubs, schools and in other ways, we will do much to combat the disregard for plants and flowers, the disregard for the landscape beautiful which is so apparent among the generation today. The garden club, in promoting interest in garden flowers among the boys and girls, can hold children's garden contests. In some cases these are based on the grades in the public school system. In other cases they are divided into different age groups. In some cases the garden club cooperates and assists the school with their school garden work, offering prizes, giving talks, and assistance in other ways.

In answering an inquiry from a commercial garden tool manufacturing company, Mr. A. L. Ford and I checked over the cities in South Dakota which have held flower shows during the past years and found, to our surprise, that there were in the neighborhood of thirty cities

and towns scattered over the state of South Dakota which have from time to time held flower shows. These flower shows have either been sponsored by garden clubs, civic and municipal clubs, or in some cases by Kiwanis, Rotary and Lyons Clubs. If you know of a garden club, or have one in your town, I would appreciate it if you would write and let us know about your club and its activities.

Just a bit of news in regard to the Brookings Garden Club. This club was organized in the spring of 1927. It has held a fall flower show every year since and including 1927 with the exception of 1930. In 1929 it held, in addition to its fall flower show, a June flower show when the peonies were at their best. It has held during the past three years a Yard and Garden Contest with an average number of entries of about 12. It has been meeting about twice a month during the summer months. It has not, however, been active during the winter months. In spite of this fact, it appears to have done a great deal of good in stimulating interest in the growing of garden flowers, both annuals and perennials, and in the beautification of the home grounds by encouraging the planting of trees, shrubs, and flowers. It has had the cooperation of the Commercial Club which has been kind enough to help the organization in a financial way as well as in other ways. It has had the support and cooperation of the City Council and mayor. It has also received many suggestions and much help from the Park Board. The business men of the town have been very generous

in furnishing premiums for the flower shows. The nurserymen of the state have also furnished premiums not only for the flower shows but for the yard and garden contests as well. Some nurserymen have made exhibits at our shows which have added to the value of the show. Other communities have undoubtedly experienced similar cooperation.

We are planning a series of Garden Club Notes covering garden club projects, activities and programs. These garden club notes may contain an exchange of ideas between the various garden clubs throughout the state, so if you have any ideas, or if you have learned by past experience things which may be valuable to other garden clubs, we hope you will send your experiences and ideas in to either Mr. Vance or to me so that they may be incorporated in the next issue of The South Dakota Horticulture. If there is any phase of garden club work which you would like to have further information on, or which you think would be desirable to have discussed in these notes, we trust you will feel free to write us about them. We will be very glad to get suggestions at any time.

[Editor's Note.—Professor Keene will write an article each month on Garden and Flower clubs. He will not go into detail on cultural methods or varieties but he will tell you of the many things that your club can do and how and when to do them. I had several years work under Professor Keene in college and I know that when he talks or writes that he will tell you something very worthwhile. If you do not read his articles carefully you will just miss some good things.]

Send your garden questions to Professor Keene and they will be answered either through Horticulture or by letter.]

Membership dues are due; do it now! **RENEW.**

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NORTH DAKOTA HORTICULTURAL SOCIETY NEWS LETTER for JANUARY, 1932

In storing cabbage for the winter, keep in a cold cellar. Some freezing will not hurt it. Where large quantities are stored the heads are usually put on shelves a foot to 18 inches deep. The shelves are placed one above the other with a little space between until the cellar is full. Ventilation should be provided. For home use, cabbage is sometimes hung up by the roots in the root cellar; for spring use the heads may be cut off and put in a pit with or without a container. A common method is to fill a barrel and bury the barrel in the ground.

To our minds, the best flower magazine for the average home owner is "The Flower Grower," published at Calcium, New York. You may get a special reduction in price when sending your subscription to this magazine through the Horticultural Society. It will cost you \$1.25 per year when subscribed to in that way.

Buttercup Squash seems to have made a very good record this year. Practically all reports received from this part of the country mentioned it as being the highest quality variety of all. Apparently it did not thrive well south of the Dakotas and Minnesota. In comparison with nine other varieties of squash at the College this year it was judged far superior to the rest in quality. Any of you who like sweet potatoes and have not tried Buttercup be sure to plant them in 1932. They will be in our premium list.

We would appreciate a little help from the members of the Society if you can give it. We have had several inquiries as to how to make autumn leaves keep their color in winter bouquets. If any of you know of a satisfactory method I will ap-



A. F. Yeager, Secretary

preciate your writing me. Incidentally, if such things interest you, you might find it very profitable to gather some various kinds of weed pods at this time of the year and paint them with the colored bronzes.

There is a superstition that a potato carried in the pocket will prevent rheumatism. "Woolgatherer," in the Florist's Exchange, mentions a woman in Sophia, Bulgaria, who is 152 years old and attributes her long life to the fact that she always keeps a potato in the pocket of her night shirt.

Dutch Elm disease has been reported in the United States. This disease kills the trees one limb at a time. The Dutch Elm Disease Laboratory, Agricultural Experiment Station, Wooster, Ohio, is interested in getting specimens of twigs of elms suspected of having this disease.

"The Modern Nursery" is the title of a new book published by the McMillan Company at \$5.00. It covers cultural practices, storage, packing, grading and marketing of nursery stock. Another book of particular interest to garden clubs is "The Garden Club Manual," also published by the McMillan Company, New York, at the price of \$2.00.

Cornell Extension Bulletin No. 112 is entitled "Bearded Iris";

No. 10 is "Gladiolus Studies—Culture and Hybridization of the Gladiolus." These may be secured from the New York College of Agriculture, Ithaca.

Farmers Bulletin No. 1394 is on the subject of "Watermelons." This was revised in 1930 and may be had free of charge.

Farmers Bulletin No. 1677-F is entitled "Planting and Care of Lawns."

Farmers Bulletin No. 1666-F is entitled "Insecticides, Equipment and Methods for Controlling Orchard Insect Pests."

Farmers Bulletin No. 1673-F on the farm garden contains information about some of the more unusual crops as well as the old standbys.

Farmers Bulletin No. 1697-F is entitled "Popcorn."

I wonder if any of our members have had success with the new grapes that have been sent out for trial from South Dakota and Minnesota. Our trials indicate that there is some promise in Minnesota No. 11 and No. 27. Both of these have fruited for two years without artificial protection and are much superior to Beta as table grapes.

The New York Experiment Station reports that plant lice may be found on sprouting potatoes in the bin and if so they may spread running out diseases such as leaf-roll, on to seed potatoes. They found, however, that the disease affected only the eye from which the sprout infected by insects has come.

I am afraid I may be hanged for heresy for this next statement. Unfortunately, after some little experience in raising plums, I have come to the conclusion that if I were setting out a farm orchard there would be in it one row of seedling plums set quite close together. This row could be counted upon

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to have some plums practically every year and would provide abundant pollination for any named varieties which might be planted. I would certainly plant the best of the named kinds, but because of their cheapness and the certainty of there being some good ones among them the seedlings would most certainly find a place.

So many of my friends have started calling me Doctor, both in correspondence and in more conspicuous places, that I wish to make it known here that I have not the right to that honor as yet. For the present, therefore, please call me just plain Mister.

One of the most striking things in the plant line observed on my trip west to the Yellowstone this summer was the creeping cedar found in western South Dakota beyond the borders of the timber area. It certainly seems this plant should be made use of to a greater extent as a ground cover for terraces, etc. It would also seem to me that it would find a ready sale as material for Christmas wreaths, etc. All that would be necessary to make it up would be a piece of string to tie the ends of the long cedar ropes together.

One of our nurserymen sent in some yellow fruited specimens of our wild Missouri currant this summer. This species should be very much more commonly grown than it is, especially where it is difficult to raise fruit. I do not believe there is any place where wheat will grow in North Dakota that one could not raise a good crop of Missouri currant and sand-cherry. Neither would require windbreak protection.

Mulch paper still seems to have its ups and downs. Some swear by it and some at it. In any event, I think there is no question but what it would be

useful as a mulch around young trees, particularly if you happen to have some quack grass on the ground.

Michigan State College reports that investigation conducted there shows no benefit from the selection of extra productive parent plants from the old raspberry patch when one is setting a new one. One plant is just as good as another providing it is not diseased.

Williston, N. Dak., grown Triumph potatoes gave the highest yields of any Triumphs in the variety tests conducted by the Mississippi Experiment Station this year. North Dakota potatoes have an enviable reputation as seed stock in the South, which accounts for the premium paid on certified North Dakota grown potatoes.

We were much gratified to receive word this summer that one of our North Dakota horticultural graduates had just received an appointment to a Government position at Pomona, California, where he would work with oranges and lemons. The fact that Mr. Leonard Rygg, who was the young man in question, was offered four different positions, three of which carried \$2400 per year salary, indicates that proper training plus the necessary ability opens the door to positions even in times of depression.

The Research Department of the Davey Tree Expert Company report beneficial results from the use of nitrate fertilizers on coniferous trees such as spruce and pine.

"Hedges and Their Uses" is the title of bulletin No. 142 of the Division of Horticulture, Dominion Experimental Farms, Ottawa, Canada. It is a very complete and interesting discussion of various kinds of hedges and their handling. Since it covers the whole Dominion of Canada, the information it contains

is useful to us also. Reports from branch stations to the north of us particularly mention as good hedge plants Siberian Pea Tree, Tartarian Honey-suckle, *Cotoneaster acutifolia*, Amur Maple, and the common and Hungarian lilacs.

A new variety of onion called Early Grano has proven highly desirable as a commercial crop in New Mexico. Since one characteristic of this variety is great earliness combined with large size and mild flavor, it might well be tried here in the North.

Mr. C. V. Porter, of Menomonie, Wisconsin, who has been a visitor at our State Horticultural Society meetings in past years, reports in "Wisconsin Horticulture" an interesting trip through eastern United States looking for new varieties. He mentions finding at the New York Station crosses of the European filbert with native hazels, which have nuts the size of the European and the hardiness of the American; walnuts resulting from crosses between English walnut and black walnut; European type plums which are hardy at Ottawa, Canada, and much work being done in Canada with lilies, lilacs and roses.

New York Experiment Station Bulletin No. 588, from Geneva, New York, entitled "Filberts," is useful to anyone interested in the possibilities of filbert growing.

Bittersweet, one of our most beautiful native vines, is reported as being sold by nursery companies who collect the wild material. It seems to me there is room for propagation of some of the particularly good specimen plants and that such propagation might help to popularize this beautiful plant.

Circular No. 143 of the Pennsylvania State College, State College, Pa., is entitled "Lawns."

In "Seasonable Hints," published by the Dominion Experi-



mental Farms, the statement is made that quack grass often has from 1531 up to 6997 pounds of roots per acre. This is equal to a heavy crop of hay and explains why it is difficult to kill out all quack grass roots.

A new microscope called the Rife microscope is reported in "Science" as being able to magnify as high as 17,000 diameters, whereas our present microscope of the old type increases the size of an object at most up to 2000 times its actual diameter. If this microscope proves to be what is expected we may anticipate very great forward strides in natural science. It should clear up many of the mysteries as to just what happens within the cells of hybrid plants when we get recombinations of characteristics. No doubt we should be able to see organisms that cause disease that have never been seen before. While this does not appear to be horticulture at first glance, horticulture will certainly be greatly affected.

A new cactus book published by the McMillan Company should be interesting to folks who specialize in cactus.

Michigan Special Bulletin No. 214 is entitled "Insects and Allied Pests of Plants Grown Under Glass." This is the most complete bulletin I have noticed on this subject.

New York Cornell Station bulletin No. 519, "Studies of the Genus Delphinium," consists of 107 pages.

In the report of the Dominion Horticulturist, trials with mulch paper are mentioned and the conclusion is reached that warm-season crops like melons and cucumbers are stimulated most by mulch paper. They state that the home garden plot can be readily kept free from weeds by the use of mulch paper, and while some advantage was shown with a few crops, the difference in favor of mulch paper is hardly enough to make strong statements in its favor. They conclude that new mulch paper must be bought every year.

The following are bulletins from the South Dakota Experiment Station, Brookings, S. Dak., which, if you have not already secured copies, you will probably want:

Bulletin No. 224—"Plant Introductions.

Bulletin No. 246—"The Shade, Windbreak and Timber Trees of S. Dak."

Bulletin No. 254—"Evergreens in South Dakota."

Bulletin No. 260—"The Ornamental Trees of South Dakota."

We have a recent inquiry about the necessity for ventilat-

ing potato pits. It is generally recommended that the pits be ventilated. However, there have been cases reported in which no ventilation was provided and still the potatoes kept well. We would much appreciate the experience of any of our members in the pitting of potatoes, particularly if you did not ventilate the pits. Information about such things as the time pitting was done, amount and kind of cover put on, and the weather conditions, might be very useful in discovering some factors which might be passed on to others inquiring about this matter later.

Our Pure Seed Department here in North Dakota states that mechanical injury is one of the serious factors in damaging the grade and quality of our potato crop. If this be true our people should be interested in bulletin No. 260 of the Nebraska Experiment Station, Lincoln, Nebraska, entitled "The Cause and Prevention of Mechanical Injury to Potatoes."

The report of the Superintendent of the Morden Experimental Station, Morden, Manitoba, for 1930 contains a long list of perennial flowers which are adapted for rockeries and small gardens. No doubt you could get a copy of this report by writing Superintendent W. R. Leslie.

EXTRACTS FROM THE DIARY OF A TRAVELING MAN

W. A. Simmons

Fargo, N. D., Nov. 2. Was fortunate in being allowed to horn in on the banquet of the Tri-State Florists Association here this evening. The officers looked me over carefully and decided to let me in, probably thinking I was a "tired and hungry" business man in need of nourishment.

Had they suspected me of an

intention to report their meeting, they probably would have promptly dehorned me. There were about 100 present, mostly from Minnesota and North Dakota, Mr. Coleman of Sioux Falls and Mr. and Mrs. Siebrecht and two lady assistants from Aberdeen, alone representing South Dakota.

After the banquet and the

usual after dinner speeches, the tables were cleared away and Mr. Glenn W. Turner, vocational school and floral shop head, of St. Louis, took charge of the meeting. Great masses of flowers were brought in and some new ideas in making floral pieces were explained and demonstrated by Mr. Turner and eight assistants. He had an-



nounced that no large pieces would be made, only the smaller ones that constituted the daily task of the ordinary florist, but one piece that contained eight dozen pink roses, two dozen sweet peas and one dozen easter lilies as well as a bushel or so of ferns, did not look particularly small to me.

As each piece was completed it was held up for admiring inspection, and then laid out on the display tables, no attempt being made to re-use the flowers it contained, there seemingly being an inexhaustible supply of these on hand. There were quantities of roses, carnations, sweet peas, chrysanthemums, lilies, and even the more rare and aristocratic gardenias and orchids. I had not realized there were so many flowers in the world.

Mr. Turner stated that when he received an order for a few dollars worth of flowers to be sent to a patron's friend, in a hospital, he gave them the choice of having a few flowers sent in a basket costing perhaps a dollar and a half, or of the almost full amount of flowers, sent in an inexpensive but beautiful container, costing but a quarter, and that most of his patrons chose the latter.

This container consists of a gallon tin can, obtained from the bakeries and restaurants, beautifully dressed with a box pleated covering of gold or silver paper, and he demonstrated its make-up for us. He advocated using the foliage of the plants that produced the flowers, as far as possible in providing greens for the bouquet. He said, "Nature is the perfect artist" and that the foliage of the plant is the perfect complement of the flower.

Our October magazine contained notice of the passing of Mr. W. W. Remington, who last year met with the florists at

their Aberdeen meeting. A gracious act of remembrance was to be the placing of most of the floral pieces on his grave tomorrow.

E. K. Thomas, in the research department of Gardeners' Chronicle, has some interesting information about thinning apples.

"Seeking to determine some of the factors underlying thinning of fruit, the Vermont station measured apples at repeated intervals throughout the growing season and found that fruits which are relatively small at the beginning of the season are still inferior in size at harvest; in other words, that the larger apples actually grow more, leading to the inference that the smaller apples might better have been removed early in the season. Definite correlations were established between fruit size and number of seeds, indicating that size is due in part at least to the quality and quantity of fertilization.

"A close association was also established between leaf area per apple and size of fruit."

Sioux Falls, Nov. 7. Had not been home over five minutes when Mr. H. N. Dybvig of Colton appeared, bearing a present of about three dozen fine large lily bulbs, including regal, coral, Alice Wilson elegans and others, all of which he had raised from seed.

Had asked for the two latter, expecting of course to pay for them, but Mr. Dybvig refused to entertain the idea of payment. It is certainly nice to be able to obtain these lily bulbs so near home and strictly healthy native Dakotans, but how on earth am I ever going to get even with Mr. Dybvig?

Mr. McCaffree has started a fine lily planting on the Capitol grounds at Pierre, and of course he is using these home grown bulbs. He has also brought over eighty choice peonies from his

own private garden, to help add beauty to our state house grounds. We have reason to congratulate ourselves in having so good a horticulturist in charge of these grounds and Mr. McCaffree is providing a fine and lasting monument for himself in the planting he has ordered there.

Nov. 10. Mrs. M. L. Countryman of St. Paul writes that the time to successfully transplant wild roses is the fall. She reports having poor success with those moved in the spring, but of having almost 100 per cent surviving among those moved in late fall.

Sign painted on the rear of a gravelling truck, "Hit me, I'm cheap."

Nov. 11. Put in part of the day "canning" 58 cans of hyacinth and narcissus, for winter blooming. Have always found tin cans to be as good a receptacle as can be obtained for forcing those bulbs, and when they are ready to bloom and are to be brought up into polite society, it is easy to doll them up with green crepe paper.

Lake Andes, S. D., Nov. 13. The water level of the lake speaks eloquently of the drought conditions of the past summer. Was told one could wade across the lake anywhere. The fish and game commission is allowing any one that desires, to seine in the lake, as the lake will undoubtedly freeze to the bottom this winter, smothering all fish that remain in it.

In the spring new supply wells will be drilled and the lake restocked with game fish and a determined effort made to keep carp out of it. It is said that carp have never been intentionally put in the lake, though they are present in large quantities. Their presence is accounted for by their use of minnows as bait in fishing for game fish. It is thought that fisher-



men on completing the day's sport, have made a practice of dumping their excess minnows in the lake, some of which were carp.

Carp are deadly to black bass, as the latter make clean nests for their eggs on the lake bottom and continually swim around the nest to protect it during the incubating period. Carp are said to be continually stirring up the lake bottom, burrowing and turning it up, and destroying the nests of the bass.

There is no race suicide among the carp. One three-pound female carp captured last spring was found to contain over 500,000 eggs, ninety per cent of which are said to hatch. This compares with about 15,000 eggs laid by a bass of the same size.

The feed situation in this section may be judged by the quarrel of two farmers over the ownership of a two year old straw stack that stood on a piece of ground jointly farmed by the contestants.

Corn stalks that ordinarily provide so much roughage in this section were this year reduced to bare canes about two feet high, by the grasshoppers, providing nothing but indigestible cellulose.

BEEKEEPING NOTES

J. A. Munro, Sec'y-Treas.

North Dakota Beekeepers' Association, Fargo, North Dakota

Circular 377, "Making Frozen Delicacies at Home," is the title of a 16-page circular by P. H. Tracy of the University of Illinois. The bulletin deals largely with the making of ice cream and sherbets and discusses the use of honey as a sweetener. If you wish a copy address your request to the University of Illinois Agricultural Experiment Station, Urbana.

Not long ago Mr. H. A. Hailey, local commercial beekeeper, finished up the season's work and left for his old home at Obion, Tennessee. Evidently Mr. Hailey had a good trip. In a letter which Mr. C. S. Engle of Fargo received from him recently, he writes as follows: "It has been raining a good deal of the time since I arrived at Obion, but I am enjoying life. I have sent my check for the American Honey Institute to Mr. J. D. Beals, Dwight, North Dakota. Times here are not so bad. People in this part of the country at least have plenty to eat even though they do not have much money. I am mopping up on good old sweet potatoes, sausage, honey, and hot biscuits. All is well with us. With kindest regards to you folk, H. A. Hailey." We are glad to see that Mr. Hailey is having a good time and will be pleased to see him back with us again next spring.

The North Dakota Beekeepers' Association convention and winter short course in beekeeping will be held during "Farm and Home Week" at the Agricultural College, Fargo, January 21 and 22. From present indications a fair attendance of beekeepers is expected. Copies of the program may be obtained by writing to the Agricultural College, Fargo.

Here is a recipe for honey jelly, sent to us by the manufacturers of Stewart's Prepared Fruit Pectin:

20 ounces water

1 package Stewart's Prepared Fruit Pectin

55 ounces extracted honey

Directions: "Weigh the proper amount of honey into a stew pan and set it aside. Next, bring water to a good boil; add the package of Stewart's Prepared Fruit Pectin, and stir until thoroughly dissolved; now pour this dissolved Pectin solu-

tion into the pan containing the strained honey; put on fire and bring to a boil; let set for a moment; skim and pour into glasses." Not long ago Mr. John Parries, North Dakota Bee Supply Company, Moorhead, Minnesota, presented us with a sample of honey jelly and after tasting we pronounced it delicious.

Recently this office was favored by a visit from Professor H. F. Wilson, in charge of beekeeping, University of Wisconsin. Mr. Wilson reports that the Miller Memorial Beekeeping Library is making splendid progress. Not long ago they purchased the "Colonel Walker Collection" of old bee books in England and this has added materially to their library of beekeeping literature.

A party in Grand Forks has asked us how to make creamed honey. Soon after the liquid honey has started to granulate, it may be beaten or stirred. The stirring succeeds in breaking the honey crystals, with the result that the honey becomes thick and creamy. This creamed honey serves very nicely as a spread for sandwiches, bread, and other cookery. The method is discussed in detail under the heading "Cream of Honey" in ABC and XYZ by Root.

Frank C. Pellett, editor of the American Bee Journal, has written a new book, and, from all accounts, it is a most interesting and valuable contribution to beekeeping literature. It is entitled "Romance of the Hive." It is priced at \$2.00 and may be obtained from the American Bee Journal publishing company, Hamilton, Illinois.

Occasionally we are asked if colonies can be fed during winter. Yes, they can be fed with some degree of success, but it is much more satisfactory to have provided them with sufficient stores before placing them in winter quarters. If it is neces-



sary to provision colonies during winter to prevent starvation, this may be done by carefully opening the hive and replacing empty combs with full combs of honey. Another method consists of providing candy. Directions for making this candy are rather detailed and too lengthy to be given here. The method is given in any of the leading books on beekeeping.

During midwinter is a good time to sweep up and remove dead bees which accumulate on the floor of the bee cellar. Care should be observed that the colonies are not disturbed while doing this.

A list of North Dakota beekeepers has recently been compiled by this office. The names are arranged according to post office addresses. Bee inspectors and supply houses have been provided with copies and have been asked to help revise the list from time to time when necessary. This directory contains upwards of fifteen hundred names and addresses.

GARDEN NOTES

F. X. Wallner, Sioux Falls

The Committee on Foods reported at the 1930 Minnehaha County Farm and Home Economics Conference as follows: No asparagus, cauliflower, celery, strawberries, raspberries, plums, cherries or apples produced on the farm. The eight bushel apples bought cost sixteen dollars, as much as the other seven items. The three vegetables are the highest on the entire list, each listed at fifteen cents per pound; only two pounds cauliflower, three pounds asparagus and nine pounds celery was used the whole year for a family of five.

The frost of 1930 may have been the cause of the poor showing of the fruits and berries but I cannot see any reason

for not seeing a better report on the asparagus. Every farm home could have asparagus, not only three pounds for the whole year but three pounds to a meal at least twice a week in season.

To show the small amount of vegetables used on the farm the report goes on with vegetables produced, bought and used for one year by this family of five: Kohl-rabi, two cents; rutabaga, twelve cents; turnips, fourteen cents; parsnips, twenty-one cents; beets, sixty cents; squash, forty-six cents; carrots one dollar and forty cents; string beans, one dollar and forty cents; dry beans, one dollar and thirty-six cents; cabbage, one dollar and forty-five cents; onions, one dollar and sixteen cents; lettuce, one dollar and twenty-four cents; peas, three dollars and seventy cents; corn, five dollars and forty cents; and tomatoes, the fruit supreme, only three dollars and fifty cents. Surely the farmer does not use vegetables as much as he should; I think the city folks use more.

The Bon Homme County Conference of the year before makes a much better report: The same size family used fifteen dollars and sixty cents worth of tomatoes; eight dollars and five cents worth of spinach; eight dollars and five cents worth of other greens; seven dollars and forty-four cents worth of cabbage; nine dollars and eighty cents worth of cauliflower, and eight dollars worth of strawberries, in fact used more in almost all the items listed.

This Committee makes recommendations that are not out of place here as I think they are fine for a farm garden; that the garden of one acre include the potatoes and sweet corn, that an early tomato be planted to meet the budget requirements of four servings a week or one hundred seventeen quarts for the year,

since tomatoes are excellent for health, are easily produced and can be substituted in the diet for other vegetables and fruits. That a leafy vegetable such as spinach, lettuce and cabbage be planted in sufficient amount to provide a fresh supply all summer and fall and allow for canning and storage, that every farm have a bed of asparagus, perennial onions and rhubarb.

I intend to bring three types of cabbage to the meeting at Beresford to show its keeping qualities; the four-ton from Hollandale developed stem rot the worst I have ever seen it. The lot from Wisconsin is much better and no doubt was disease proof Wisconsin No. 8 seed, our own yellows resistant but cut about three weeks later has held up best. We will also show some of the twenty ounce Sweet Spanish onions and other vegetables.

The American Magazine for December has a thrilling news story, "Wearing Burbank's Shoes," two lines under the picture on page sixty-five, "The biggest thrill of all is in making things grow — creating something on your own plot of ground, that's real adventure." I wonder do I take these lines too seriously, it seems hard to carry on sometimes but this story is so full of thrills, it gives one new hope of better times. Five thousand dollars for one apple tree, six thousand dollars for a freak limb of one tree.

Quite often I have had sweet peppers get hot, but to have hot peppers get sweet was something new. It happened this past season. Surely it is not wise to use them for seed.

Our investment in Hollandale cabbage will turn out to be a big loss, I was there on the ground to guard against bad handling and bruising and not get diseased stock in spite of all my efforts, it developed dry rot or stem rot so that it is almost



a total loss—could this disease remain in the cabbage from year to year?

I have had more success wintering my little gold fish in a big tank on the sun porch than last year. Heavy freezing is prevented by covering the top with card board in zero weather. There is a little packing around the tank also. It is very interesting to see the little black fish gradually turn to a golden color.

THE SNOW BUNTING

O. A. Stevens

These are almost the only birds which may be seen in large numbers in North Dakota during the winter. Large flocks of small, mostly white, birds can be nothing but snow buntings. In size they are slightly larger than the common English Sparrow. If they fly over sufficiently close, the wings will be noticed as tipped with black. The male bird in summer is all white except for his black back and considerable black in the wings and tail. The female is brownish and streaked in place of black. The fall birds are more or less covered with light brown. This is only on the tips of the feathers and it wears off toward spring, leaving only white feathers. Thus we have one of the few cases of a change in color without molting.

The snow bunting is another one of those birds which inhabit the far northern regions all the way around the earth. They have been found in summer as far north as land is known and southward only along the Arctic coasts in western America and to about 60° latitude in eastern America and in western Europe. During winter they are found chiefly in southern Canada and northern United States. Still farther south they wander frequently to the central states and occasionally as far as South

Carolina and Florida. The European birds winter southward to central Europe, sometimes reaching northern Africa.

The nests are built on the ground in the grass, for of course there is no other place for them in the far north. The nests are said to be well built of grass and moss, the eggs grayish or greenish, more or less spotted with brown or purple. Various exploring expeditions have reported that the birds begin to arrive in the far north about the middle of April, and are well settled by the last of May. The first to appear in the fall in our region are a few individuals in flocks of Lapland longspurs the last of October.

The snow buntings are closely related to the Lapland longspurs and are much like them in habits. They are seen in winter in even larger flocks than the longspurs, often a thousand or more. The notes of the two species are similar though the buntings may be recognized by its clearer tone which is more of a whistle. On the ground they are found in stubble fields hunting seeds of pigeongrass, ragweed, pigweed or scattered grain. Frequently they will come into the barnyard for the grain and weed seeds in straw piles. They do not hop when on the ground, but walk, or perhaps creep would be a better word, for they slip along close to the ground and so quietly.

"Snowflake" has been used for these birds and it is quite appropriate for large flocks of small white birds during winter. The name "snow bunting" has been preferred by the ornithologists, evidently because it is more descriptive. The term "bunting" is applied to a few of our birds of the sparrow family and more commonly in Europe. The name "snowbird" is of course less definite. The slate-colored junco has been a

still more common "snowbird" in eastern United States and sometimes was called "black snowbird" to differentiate it from the snow bunting.

MORE PERENNIALS IN THE DAKOTAS

A. L. Truax, Crosby, N. D.

THE CAMPANULAS

The Campanula or Bellflower family is widely spread throughout the globe. "Johnson's Gardener's Dictionary" lists over two hundred varieties and species in this family which includes annual, biennial and greenhouse varieties. Of these, perhaps the most showy and floriferous garden variety is Campanula **medium**, or Canterbury Bell. Unfortunately this variety is a biennial, and it cannot be carried over through our Dakota winters without heavy and careful protection.

Campanula **Pyramidalis** or Chimney Bellflower is also a most handsome variety, tall and stately of growth. In Europe it is much grown in pots in greenhouses. I have had it here in my garden, but though spring set plants bloomed finely in August and September, they failed to appear the following year; so I have concluded that it is either biennial in character, or else too tender to endure our Dakota winters.

Of the two perennial Campanulas I have grown **C. rapunculoides**, or Lady Bell, **C. punctata** or Spotted Bellflower, **C. alliariaefolia** or Caucasian Bellflower, **C. latifolia macrantha**, **C. carpatica** or Carpathian Bellflower, **C. rotundifolia** or Harebell, and **C. persicifolia** or Peach-leaved Bellflower. However, as time has gone on and my available garden space has decreased, I have narrowed down to the last three named, as the most



valuable and useful for Dakota gardens, though all are good and well worth growing except *C. rapunculoides* which is a veritable pest, spreading itself not only by seeds which spring up everywhere, but also by its fleshy underground roots after the manner of the Sow Thistle. **BEWARE OF IT.**

C. carpatica, from the Carpathian mountains of Europe, is a pretty species, growing about eight inches in compact tufts, bearing clear blue saucer-shaped flowers erect on wiry stems. It begins blooming on late June, and if well watered and cared for, it will continue to bloom until fall. As an edging for the hardy border it is unsurpassed.

C. rotundifolia, the Harebell or Scotch Blue Bell, is famed in song and story. It grows wild not only in England and Scotland but also here in our own Dakotas, where it is found on rocky or gravelly banks or other exposed and well drained places. Given a well drained spot in the garden, this wildling of hill and forest will greet you in July and August with its handsome tufts of foliage and its nodding bells of blue.

C. persicifolia, or Peach Bells, is more robust and conspicuous than either of the above. It grows to a height of two feet and may be had in both blue and white. Some have told me that this charming plant was not hardy in North Dakota, but it is surely hardy with me. Given the usual protection of three or four inches of dry straw, it forms in my garden spreading clumps of ever green foliage, which are crowned every June and July with two foot stalks of snowy white or clear blue bells. Then there is an improved variety called Telham Beauty which is even more robust than the type and bears somewhat larger flowers of lavender-blue,

also a double variety called Moecheimi, which, for lack of space, I have not tried.

If anyone in the Dakotas fails to succeed with any of the three species of Bellflowers which I recommend in this article I think that it must be from the lack of two simple requirements, viz: they need a well drained soil and will not thrive

in one that is wet or soggy; and, like all evergreen plants here in the Dakotas, they need a few inches of dry straw thrown over them to protect them from alternate freezing and thawing and from the winter winds which sap and dry the foliage. Given these two requirements, I am sure that they will please and reward you.

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