

NORTH AND SOUTH DAKOTA HORTICULTURE

MAY, 1950



Four of our nice Gals. Left to right: Mrs. Harry Kennard, Brookings; Mrs. Geo. M. Jorgensen, Dell Rapids; Mrs. Leo Monteith, and Mrs. Herman Olson, Brookings. They are looking over part of a large display of calico flowers, driftwood, ivy, baby tears and winter terrariums which was a feature of the Good Earth Garden Club's Birthday Tea, held February 22nd, in the city hall.

—Cut furnished by the Brookings Register.

THE BLACK-THROATED BLUE WARBLER

By
O. A. Stevens



O. A. Stevens

I am somewhat surprised to find in looking through my records that I have reported banding six of these birds, one each year over a period of 20 years. Usually they appeared in the fall when a dozen different species look much

alike. Usually I carried the bird the three-fourths mile home, compared it with descriptions and illustrations, consulted and debated and finally released it still wondering if I were right.

The fully plumaged male is distinctive enough and aptly described by the name. The entire back, from the base of the bill is a grayish blue. A large patch of black spreads over the throat and cheeks, running down the sides under the edge of the wing. Otherwise the underparts are white. The female and young, alas, have the greenish, yellowish back and yellowish underparts common to so many female, young and fall-plumaged male warblers. The book says that a white spot in the middle of the edge of the wing and absence of wingbars are the best characters.

The first scientific description is based upon that of the French naturalist Buffon, who called it "the bluish warbler of San Domingo." There is a still earlier reference by Edwards in 1758 to a bird found at sea near Haiti. Alexander Wilson knew it only slightly. It was one of the rare species which he found during migration. He could not find it in the south in winter and correctly guessed that it must nest in Canada. He suspected it might remain a mystery and in this he was not too far wrong.

Dr. Roberts reported it as one of the rarest of Minnesota warblers. There were a few nesting records from the evergreen forests in the northern part of the State but often a year would pass without anyone catching sight of a single bird. The

nests are said to be usually in small bushes, large and loosely constructed. The eggs are creamy or bluish, evenly spotted or wreathed around the larger end, about five-eighths of an inch long.

John Burroughs wrote that the song of this warbler had a plaintive cadence and was "one of the most languid, unhurried songs in all the woods. I feel like reclining on the dead leaves at once". Dr. Roberts thought it screechy and unmusical. Others said, difficult to describe but perfectly distinctive" and "the hoarse, drawling character of the last notes will always serve to identify the song".

We have learned quite a bit about the bird since Wilson's time, but Mr. Bent's volume on warblers is still in press so I have not the latest compilation at hand. A few have been reported at Key West, Florida in winter and from there through the West Indies which seems their main winter home.

POPULUS TRISTIS.

A Promising New Tree at Dropmore
By

Frank L. Skinner, M. B. E.

It is rather interesting to note that trees and shrubs which may be of little value under some climatic conditions may be extremely valuable under others. At the Royal Botanic Gardens at Kew in England the Siberian Larch is of little value while here in Manitoba it promises to be one of our most valuable trees being quite at home on rich soils and at the same time much more resistant to drought than most of our native trees.

This fact led me to try another tree. *Populus tristis*, that has not done well at Kew. Here is what Bean says of it in his "Trees and Shrubs Hardy in the British Isles"; "*Populus tristis* (Fischer) is a balsam poplar allied to the above with similar downy shoots and leaf stalk. . . Brandis, alluding to it as *P. balsamifera*, says it occurs in arid valleys of the inner north-western Himalayas. Probably our climate is too moist and dull for it. Although introduced in 1896 from Spaeth's Nursery at

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South Dakota ♦ HORTICULTURE

NEWSLANTS

By
Harry A. Graves



H. A. Graves

There continues to be a rash of articles in magazines of national circulation marveling at the magic produced by the green fingers of Albert Franklin Yeager.

One of these appeared in the April issue of NATURE magazine. This was an excellent article on Dr. Yeager and his work with vegetable crops especially at New Hampshire. The accompanying pictures are very good. Time has dealt kindly with the man from Kansas and it looks very natural to see him juggling a handful of tomatoes, and casting a critical eye over two halves of a Midget watermelon. Elwyn Meader, who began working with Yeager at N. D. A. C. 13 years ago and who is now associated with him at the University of New Hampshire, is also featured in this article. Meader, as some of our readers will recall, spent a year as a horticulturist with the army in Korea. Meader who was a native of New Hampshire and having been exposed to Yeager's techniques of improving things at home by crossing them with plants from far away lands kept a steady supply of plant material funneling back to New Hampshire. The results of some of these things are rather startling.

Another article of a similar nature appeared in the March issue of NEW ENGLAND HOMESTEAD, a farm paper published at Springfield, Mass. This latter magazine, of course, has its circulation confined to the New England area, no doubt.

Letters continue to come in lamenting the passing of W. E. H. Porter. The latest comes from Mrs. Lyle Weber of Glenburn, a member of the North Dakota Society who says his writings were more like conversation than the usual printed page. This is perhaps as good a de-

finition of Porter's style as has been turned up so far.

Poring through some old notes by Dr. Yeager on the self-fruitfulness of various fruits, I note that he pointed out at that time that *prunus tomatosa* is self fruitful. This is important and something to bear in mind since many of our *prunus* species are not. Several selections of *prunus tomatosa* has been made and good seedlings can be purchased from several nursery companies. One of the named selections of this variety is the variety Drilea from the Morden station and another variety Orient, a selection made at the University of Minnesota fruit breeding farm. To people who have room for a small number of small fruit bushes, the *prunus tomatosa* should definitely be considered. It is quite hardy and bears good crops of bright, red fruits generally. There are variations in the color and some of them are practically white. However, the type color is a bright red.

Bulletin No. 234, "Strawberry Growing in Manitoba" by Associate Professor E. T. Anderson of the U. of Manitoba at Winnipeg is a new leaflet that has come to our desk recently. The circular was published in March. This leaflet has 3 pages of printed subject matter on the culture of strawberries which, I think, is applicable to us here in North Dakota. Those of you who would like to receive a copy, I am sure, will be able to secure one by writing to Professor Anderson at the U. of Manitoba in Winnipeg. It will be a good supplement to other bulletins on strawberries from the Northern Great Plains.

"New or Noteworthy Vegetable Varieties," by Dr. J. H. Schultz is an excellent article appearing in the March and April issue of the Bi-monthly. The Bi-Monthly, as many of our readers know is a periodical publication of your North Dakota Agricultural Experiment Station. In this article Dr. Schultz reviews the progress that has been made in vegetable breeding in the past 20 years with special emphasis on the trials here at the ND Agricultural Experiment Station for the past 2 seasons. The article is illustrated and should be of interest to anyone who gardens. Citizens of North Dakota who are

not already on the mailing list for this Bi-Monthly bulletin should write to the Information Department, NDAC, Fargo, and ask to be placed on the mailing list.

This has been another season that gives us little basis for what to expect from plant materials. Everyone, of course, had their perennials, shrubs and trees exposed to the low temperatures. However, not everyone has to worry over whether or not their perennials drowned. I think it was on March 26, that it rained all day in Fargo. The official precipitation was something over an inch. The snow water released which was hastened by the rain was quite unmeasurable. At any rate, we have a great deal more water in our back yard than we have ever had in the 5 years that we have lived at 1521 7th Avenue South.

We raised our garden with 5 cubic yards of soil last year and planted our new tulip bed on the highest spot but it wasn't enough. Now we wonder how the tulips feel about it all. Our previous experience with tulips that have been too wet—too long is that many of them will come but they are a sorry looking lot. Let's hope the frozen ground and the dormant condition of the bulbs will save the day.

This transition from winter to summer (we hope) in the matter of a weekend confuses some of us on more fronts than just the horticultural sector. I had just completed arrangements for having my winter fish house hauled off the lake when my authority on trout fishing handed me a small package which turned out to be an extra special leader for my fly line. "Don't forget May 29!" was his only comment—but in a tone that implied "Don't forget".

Plans are still brewing for a meeting of the North Dakota Society in Fargo in June. We have some specific dates in mind but can't give anything definite until we get confirmation from a couple of prospective program numbers. Don't anyone give us a bad time for not having an annual meeting the past three years. Just come to this one and show us you think they are necessary and worth while! Our thinking now is that the dates will probably be during Fargo's Jubilee Week, June 4-10. The whiskers will be worth seeing—if nothing else.

THE ARGEMONES

By

A. L. Truax



A. L. Truax

In 1929, when on a visit to Wind Cave National Park in South Dakota, my attention was attracted by the profusion of beautiful Argemones or Prickly Poppies which grew there. I looked in my Gray's "Manual of Botany" and found only two varieties of Argemones given there, viz: *A. platyceras* and *A. mexicana*, the latter with yellow flowers. As the South Dakota variety bore white flowers, I concluded that it must be *Argemone platyceras*, and, judging from the stature of the plant, I thought that it must be a perennial, and so stated in one of my articles for this magazine. However, Mr. Simmons said he was sure that I would find it to be an annual, and, after some discussion, Mr. Claude A. Barr, who is an authority on the flora of that part of South Dakota, settled the issue by identifying the plant in question as *Argemone intermedia*, and stated that it was perennial in character. I then became interested in the possibilities of this particular Argemone as a garden subject for the Northern Plains, and in so doing I learned a little about Argemones in general, which I am giving here.

To begin with, the name is pronounced Ar-jé-mo'ne, with accent on the third syllable, and does not rhyme with Anemone, as I had supposed. Without going into technical botanical detail, the species *Argemone* is generally described by botanists as follows:

Annual or perennial herbs or rarely shrubs, with prickly bristles and yellow or white sap. Leaves alternate, clasping, pinnatifid or lobed, the divisions tipped with spines and often blotched with white. Flowers erect in bud, perfect. Petals 4-6, showy, yellow or white. Stamens numerous. Sepals 2-3, hooded or horned, deciduous.

Rydberg's "Flora of the Prairies

and Plains of Central North America", which is the latest and best Botany for the Great Plains region, lists the following varieties of Argemone:

1. *A. mexicana*, with yellow flowers; its habitat, hillsides, cultivated ground, and waste places in the West Indies, Florida, Texas, South America, Africa, East Indies, and Australia. Cultivated and escaped. Reported ers; habitat, the plains of South Dakota from Colorado, Iowa, and Kansas.

2. *A. intermedia*, with white flowers; habitat, Missouri, Texas, Northern Mexico, and Wyoming.

3. *A. hispida*, with white flowers; habitat, the plains of New Mexico, and Wyoming.

4. *A. squarrosa*, with white flowers; habitat, the plains of New Mexico, Colorado, and Kansas.

A. hispida, above, is listed in Coulter & Nelson's "New Manual of Rocky Mountain Botany" as *Enomegra hispida*, since Mr. Nelson consider it to have sufficient distinctive characteristics to warrant its being classed as a distinct species. *Enomegra* is *Argemone* spelled backwards. It is classed by Nelson as a perennial. Rydberg has restored it to its original place among the Argemones.

Gray's "Lessons and Manual of Botany" lists also *Argemone platyceras*, giving as its habitat Central Kansas and Nebraska, south and westward. Rydberg does not list this variety.

Rydberg does not state which varieties of Argemone are annuals and which perennials. *A. mexicana* and *A. platyceras* are probably annuals, though they may act as biennials under certain conditions. *A. hispida* and *A. intermedia* are no doubt perennials, but are somewhat short-lived and may act at times as biennials. I have no data on *A. squarrosa* in this respect.

In early May, 1945, I planted seeds of *Argemone intermedia* in ordinary garden soil and the plants blossomed in August of that year. It was necessary to move them to another location in the spring of 1946, where they blossomed again in August and September of the same year. On this date August 4, 1947, they are again in bloom. This being their third consecutive year of bloom proves quite conclusively that *Argemone intermedia* is a perennial.

I find that *Argemone intermedia* is a fine garden plant. It propagates readily from seed and resists drouth and heat. I use it for planting among Oriental Poppies, where it fills in the spaces caused by the dying foliage of the latter with its glaucous leaves and great white, silken corollas with rings of golden stamens clustered around a rich purple stigma. Although Southern South Dakota appears to be the northern limit of its natural habitat, my experience shows that it is hardy far north, as Crosby is practically on the 49th parallel of latitude, in the extreme northwestern part of North Dakota. Seeds purchased of any northern seed house are quite sure to be those of *Argemone intermedia*, even though they are labeled only "Argemone or Prickly Poppy".

Plants? Or Plantings?

A person who has an interest in gardening usually is a born collector. In fact, his decision to try his hand at decorating the yard often becomes a necessity for this reason. After collecting plants for a short time he is confronted with the problem of spreading them out in order to accommodate them.

At this point if he can grasp the idea of looking at his material, not as individual specimens but as plantings, his chances of improving the landscape appearance of the grounds will be much greater. One plant or bush, standing alone has little opportunity to do any work. A group of plants becomes a "planting," and plantings, as explained earlier, have numerous functions. A good landscape scheme is merely a series of plantings so placed that they screen, background, and blend the home grounds into a useful and beautiful home.

Hybridizing is planned among the several species of chokecherries. The fruits are useful for jam and vinegar. The trees appear to offer opportunity to breed choice ornamentals. Already there is the Schubert chokecherry with thick deep red purple leaves, introduced by Oscar H. Will Nursery, Bismarck, North Dakota. Purple foliage and yellow fruit on a colorfully barked Amur chokecherry would be an aristocrat among hardy shade trees.



W. R. Leslie

VEGETABLE GARDENING

is an activity of most households. The United States Department of Agriculture publishes excellent helps on the culture of garden crops. Miscellaneous publication No. 538 bears the title "Growing

Vegetables in Town and Country". The following don'ts are listed:

DON'T try to grow vegetables on a lot that is—

Too poor to make good growth of weeds or grass.

Made up mostly of rubble or unweathered subsoil "fill".

Contaminated with coal, chemical, or oil-products wastes.

So wet that it grows weeds common to marshy or poorly drained spots.

Likely to be flooded often by stream overflow.

Located so that it receives much storm drainage or surface water from above.

Shaded by large trees more than a few hours a day.

DON'T spade, plow, or cultivate soil that is too wet.

DON'T apply too much lime.

DON'T run the rows up and down a slope.

DON'T plant seeds, roots, or tubers too deeply.

DON'T sow seeds too thickly, and DON'T FAIL to thin out plants to the proper distance.

DON'T guess at the amounts of fertilizer or strong manure to apply per unit area of land.

DON'T let fertilizer or manure come in contact with seeds or plants.

DON'T cultivate deeply enough to injure the shallow roots of the vegetables.

DON'T let the weeds get big before you try to destroy them.

DON'T apply water in numerous light sprinklings, but water thoroughly about once a week if rainfall is deficient.

DON'T FORGET to obtain the necessary dusting or spraying equipment and materials early in the spring—before you need them.

DON'T let the vegetables go to waste.

DON'T leave any land idle during the growing season.

DON'T leave the soil in such condition that it will wash or blow away during the winter.

Although the bulletin is five years old, the principles recounted are timely reminders today. Experience at the Morden Experimental Station gives weight to the local importance of good soil, timing of operations, combating pests, shallow cultivation, restraining weeds, welfare of the soil and considerate care of produce until it reaches the table prepared for consumption.

APRICOT IMPROVEMENT:

The Apricot is the tree fruit which recently has added interesting variety to plantations of Southern Manitoba. The hardy foundation is the Siberian apricot from the northern reaches of the Orient. The dwarfish tree is very hardy. The fruit is small and bony. The value of the species is first its charm as an ornamental which displays pink bloom a few days before the earliest plum, and secondly, as a source of stock upon which to work edible varieties. Yet another use may be in breeding greatest hardness into apricots. The difficulty is to eliminate woodiness in fruit flesh of the progeny.

The Manchurian apricot is larger in tree, paler in flower color, somewhat edible in fruit, and almost as hardy as the Siberian. It enters into the breeding program, being used in combination with the large-fruited quality dessert varieties. The Scout arose as a seedling from seed donated by an experimenter in Manchuria. It probably carries about fifty percent Manchurian blood.

The breeding effort at Morden has involved Scout as the mother parent in most cases. A number of commercial varieties have been used as pollen parents. Most effective has been the McClure. Some valuable new hybrids have already been selected. Fortunately a few have the virtue of blooming several days later than Scout. One of the hazards in growing apricots is that their very early

blooming habit exposes them to damage from spring frosts.

Success has been substantial in apricot culture in Southern Manitoba. In contrast, territories subject to considerable thawing weather during winter may fail frequently owing to the buds being stimulated into activity before heavy frosts are over. At Morden, seldom is there a failure in the apricot crop. However, such esteemed commercial varieties as Moorpark, Tilton and Perfection are too tender for this region. The leading varieties being grown with confidence have pleasing culinary quality but only three of the present selections are classed as good dessert varieties. The fresh fruit tends to lack juiciness in most cases.

A promising line of breeding is that of using the pollen of dessert plums on the apricot pistils. The resulting hybrids are sometimes referred to as plumcots. Interesting selections are being retested at Brooks, Alberta, as well as in Manitoba.

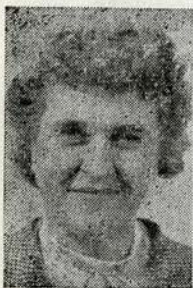
RASPBERRY BREEDING for prairie conditions has been limited in extent. Varieties found on today's recommended fruit lists, such as Chief, Latham, Herbert, and Viking have been grown for a long time. Each has been accepted and widely grown but in several respects falls short of an ideal berry for the prairies. Further improvement in such characteristics as increased winter survival, greater drought tolerance, greater disease resistance, higher yield and large size of fruit with high quality, especially suitable for freezing, would encourage wider use of this fruit.

Development of varieties which will survive prairie winters to a greater degree than those now grown is of first consideration in the Morden Station raspberry breeding program. Investigations revealed that winter survival in this plant is exceedingly complex. The ability to resist winter cold is due partly to a rest period and to the inherent ability to develop much hardness under favorable conditions. The rest period in the Latham variety generally ends by mid-December and then several days of high temperatures will start it into growth. Subsequent freezing

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GARDEN CLUB GLEANINGS

By
Juanita Jorgensen



Mrs. Jorgensen

Federation News

Have you begun your program to Plant South Dakota? You are late now, but not too late. Carry on.

With the receipt of year books from South Sioux, Highmore, Sioux Falls, and Flandreau, the entries have mounted to fourteen. This is better than last year, but not enough, though we have heard rumors of two others still in the making. Better get busy if you want to enter this year's contest.

Convention dates are September 27, 28, 29. Are you making provision to send your quota of delegates? The task of contacting speakers, and correlating speaking dates and schedules, and of trying to make each number on the program of vital interest to everyone attending the convention, has begun. National officers, President Mrs. Leonard Slosson, Second Vice President, Mrs. Mattocks, and Regional Director, Mrs. Parkinson, are possible honored guests, with Mrs. Slosson tentatively accepting the invitation. One number has been definitely scheduled to cooperate with National Council's program of National Park study, that of the slides on the Redwood Grove country, and one concerning the roadside beautification program. The program committee has suggested a broad outline to include registration Wednesday morning, reception Wednesday night, and banquet Thursday night.

We salute Mrs. D. S. Baughman, Madison, South Dakota's sole representative to National Council's annual convention, in Richmond, Va. Alone, of our 800 members. Mrs. Baughman sallied forth to drive half way across the continent so that South Dakota's interests and ideas concerning national affairs will be expressed. She says, "Just let anyone try and stop me!"

The latest book is Green Laurels, the lives and achievements of the

great naturalists, written as only Donald Culross Peattie can write. Something out of the ordinary is Flowers of Ten Centuries which describes an exhibition, from the John Pierpont Morgan Library. The Trick of Making Your Own Corsages, by Sophie Naumberg, presents the case for the corsage so graphically that you can almost feel it being made while you read about it. Trees and the Bible is a brochure of Biblical quotations concerning trees. It is edited by the Texas Forest Service A & M College. Many of you will want this.

Of special interest to your club publicity department is the book, What Makes You Think So? by Vella Winner, which tells you what, how and when to make up your best club reports.

Where are you going on your vacation? How often have you passed an entrancingly lovely garden in strange city and longed to get in and see it? Perhaps that was the very garden which was open to you as a member of the National Council, and you would have been made most welcome. Your "open sesame" to both foreign and American gardens is a Visitor's Card which you may obtain by writing to Mrs. French Craddock Visiting Gardens Chairman, Sylacauga, Alabama. She also has on hand booklets from 17 states naming and describing the gardens which are open for visiting. We now have on hand the one from Virginia, as well as one Application for a Visitor's card. What wouldn't we have given for such a card to give us access to all the walled and guarded private gardens down in Mexico last winter. Write if interested.

Juniors are not forgotten either, for we have as excitingly illustrated book, Where Did Your Garden Grow? by Jannette May Lucas. This book should appeal especially to Junior Nature students because it shows where most of our own garden flowers once grew as wild flowers in Africa, Mexico, Asia, South America, and other places. There is a book of Birds from the Illinois State Museum; and the National Audubon Society, 1600 Fifth Avenue, New York, has a series of publications for Junior bird

students, as well as circulars which may be obtained from the Missouri Conservation Commission at Jefferson City, Mo. The last item on today's long list is a leaflet composed entirely of beautiful colored pictures of Wild Flowers of the West which either child or adult would enjoy.

From Highmore our second vice-president, Mrs. Vern Tompkins, writes, "Hear ye! I have not lived in vain. Winner is organized with 25 members and Pierre with 30." And from Rapid City Mr. Atkinson also promises results at Spearfish and Lead, and says, "I have organized one Junior Garden Club in Rapid City, and I think in two weeks there will be one and possibly two more young folks organized into clubs." That is really bringing them in, and we await further word happily.

You just cannot keep people from wanting to join the garden club once you have one organized and a leader in charge, as Mrs. R. K. Morrell has just discovered. Mrs. Morrell is president of the new Pierre Garden Club organized in March, which was palmed to include a limited membership of 30. Applications far exceeded that quota long before the first meeting, so the limiting clause was deleted and membership thrown open to any interested parties. The size of the club is usually dependent upon obtaining a suitable meeting place and the problem was solved at Pierre when the County Agent offered his offices in the Hughes County Court House for this purpose. Two state officers, President Atkinson, who came half way across the state, and Mrs. Tompkins, were speakers at the club's first meeting and contributed much that was helpful to the new group. Mr. Atkinson's talk on roses was enthusiastically received. A civic committee, an Executive Board (in addition to the elective officers), a historian, and a parliamentarian were appointed, the new constitution read, a floral emblem adopted, and arrangements made to join the State Federation—and all at that first meeting! Just wait until they get started! The Pierre Club is composed of both men and women, and bodes well for great accomplishments among them. Officers, in addition to Mrs. Morrell, are Helen Littlefield, vice-president; Cecilia Cudmore, secretary; and Gladys Carmine, treasurer. Both president

and secretary enthused over the intense interest evidenced in the meeting, and judged it augured well for an inspired future.

A garden club in the Winner territory has a virgin field for accomplishment, and we are eagerly looking forward to more news from them. Mrs. Frank McKenzie writes to ask when dues are due. We have hoped for a club in both the above territories for so long that we can scarcely wait to chalk up "35" for our new total of clubs in the Federation. Watch for that number, or more, when Mr. Atkinson gets busy, next month.

Our sympathy to the several clubs which have recently suffered losses, the latest is Mobridge where Mr. Wm. Catey's death is mourned. He was a very fine member of the club.

A correction is due on the report of free glad slides for loan from the Noweta Gardens at St. Charles, Minn. There is a charge of \$3.00 for their use, but Mrs. Briley says they are very worth while. As State Historian Mrs. Briley has worked out a tentative schedule for clubs to follow to make a state history easier to compile.

Sunshine Garden Club of Highmore makes a big event of their annual plant sale, and folks of the community have come to depend upon them for their spring plant supplies. Mrs. Tompkins and Mrs. Gordon Gadd are in charge this year and expect a larger turnover than usual. The name of Mrs. Morris Harter, first president of the club, is back in the news of the group as the April meeting was held in her new home. Planning the Garden, by Ethel Morford was the topic of study. The new year book carries the sunny encouragement of five big community events, high aims for the year, and a galaxy of good programs.

South Sioux Garden Club also has a new year book whose cover intrigues and whose verses put you in tune with Nature. The membership was jumped up six points the past month. Mr. Salisbury's talk on small fruits and berries was timely for this club, most of whom have space for strawberries and small trees.

Rural Garden Circle's program was on Tree Planting and Tree Care, just Helpful Insects could be more

widely studied. Mr. Young of the Young Floral Shop in Sioux Falls gave a very interesting talk and an object lesson in the art of flower arranging.

"We spent a full two hours on our program and hated to quit then" comes the good word from Mrs. Andrew Melham, president of the Watertown Club, and no wonder, since Mrs. H. B. Crandall was the speaker. Her talk covered home landscaping as well as floral arrangements. The Watertown club is another which took a long time getting started but which has doubled its membership since last fall. There is even talk of organizing another club to accommodate all the folks who cannot attend an afternoon meeting.

Sioux Falls Garden Club has begun their series of gardening information in the Argus-Leader, appearing once a week under the title of Garden Gossip. The column is packed with solid sense briefly but comprehensively written. We suspect Mrs. C. A. Freed, who is publicity chairman, for the first time in their history as a club they also have produced a year book, and its lovely cover, and program covering almost every category of gardening is a high credit to the committees. Mrs. Crandall and Mrs. C. I. Keck are the two chairmen responsible for it. The club's projects have mounted to six major efforts, including two big flower shows. The club is fortunate in having Mr. J. M. Stevens as a member, for his talks and advice are branded with the authority of his knowledge. Mr. C. W. Heinson is another member whose wild flower slides are marvelous examples of the art of photography. He is also happy to show them and extoll the beauty of the wildlings.

Flandreau's Green Fingered folks have evolved another splendid year-book to add to their past triumphs. All of us with an ancestral inheritance from Old Erin would like to have heard their March program and call. Shades of Our Ancestors, and Meet the Irish. One of their lesson sources is the Science News Letter, a magazine which seems to offer much news in that field in a form easily absorbed by any group. Ladies in a home for invalids are lucky to

have Mrs. Albert Duncan as a member of the club for she took them to a terrarium, wherein plant growth and changes may be constantly seen. New and unusual plants from California were added this time.

After a winter's vacation the Centerville Garden Club had a big Guest Day program in Memorial Hall with Mrs. Dorothy Rist as guest speaker. Having just returned from Hawaii, Mrs. Rist was imbued with all the enthusiasm of a returned traveler for all the lovely things she had experienced. She wore a lei made of the flowers she had received while there, and told about the trip, the island, the flowers and climate, and the very interesting natives there.

For the In and Outdoor Garden Club of Sioux Falls, Mrs. M. E. Schirmer writes about their big Tulip Show to be held on May 27th. This is not a mere Tea, but an early flower show with four main divisions, the horticultural, arrangement, educational, and Junior, and includes classes for miniature gardens in the latter. The group prepared for the show by devoting a meeting to the review of the flower show practice course as given in Judging School. Did you know? Of the 16 people listed as having completed Courses I and II of the Schools, four of them are members of this club. The group invites everyone from neighboring towns to participate in their flower show, or at least to visit it. Mrs. Crandall's motto must be "Flowers are made to share" because the group credits her little greenhouse as being the source of supply for most of the blossoms they have given this winter. For April they are planting a small terrarium for the Old Peoples Home.

Have you seen "It's a Date?" Incomplete returns on this home talent play sponsored by the Good Earth Garden Club of Brookings indicates it is a huge financial success, and anyone who works as hard as those Good Earth members do, deserves all the laurels that are being passed around. We wonder if theirs is not one of the smallest groups in the state that has undertaken such an extensive project. Financial benefits obtained from the play will revert directly back for the good of the city

(Continued on Page 80)

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Wayside Gardens

Mentor, Ohio

JUNIOR CLUB NOTES

By
Lona Crandall



Lona Crandall

Correspondence with adult club presidents and secretaries regarding the organizing of junior garden clubs is alternately encouraging and discouraging. A few towns obviously understand Mrs. Garrett's remarks about the need for conservation and are doing something about it. Mrs. Garrett, who is the National Chairman of Junior Garden Clubs, writes in a recent issue of National Gardener, that every club should include the study of conservation in their programs, and that the conservation of our children is more important even than the conservation of our soil and water.

Families tend to divide their interests, each going his or her separate way. The youngsters don't enjoy

Mother's bridge parties, nor Father's golf, and the parents find the western movie a convenient entertainment for the children while they pursue the activities in which the children have no part. Gardening, and all its related interests, is an activity that even the carriage crowd can take part in.

The family garden club, with the juniors meeting for their program at the same time as the adult club meets, appeals to me as a convenient way of getting everybody to the meeting with the least trouble. Naturally, an adult club program will not usually appeal to the juniors, but the activity that goes with the study of gardening, birds, conservation, flower culture and arrangement, can be enjoyed together by the entire family.

The children of adult club members should make good starting material for a junior club, but occasionally it will be found that children are interested first in the junior club, and their parents can then be brought into the adult club.

Programs for this of the year may be largely practical use of informa-

tion picked up as needed. This method of teaching is recognized as ideal in the modern school. Meetings for combined adult and junior clubs can well begin with a picnic meal together the picnic followed by the separate meetings. The adults might find spring pruning interesting and informative, the children can learn at their meeting to identify the shrubs and trees by their bark, buds and seed pods now forming on some varieties. They will also be interested in learning that the flower buds now opening formed last year. These ideas, as always, lead to others, and the information gained is of great value to everyone, but even, so great a value is lost in the importance of providing the family with something they can do together.

A few conscientious parents do try to take part in their childrens' play, but too often they would rather be doing something else, and the children soon sense this and the fun is lost. The parent who likes gardens and birds and natural woods and streams has a sure interest to pass on to children, an interest which will

(Continued on Page 74)

BOOK REVIEWS

By

Mrs. L. N. Brakke



Decay of Timber, by K. St. G. Cartwright, and W. P. K. Findlay. Published by Chemical Publishing Co. Inc. 26 Court St. Brooklyn 2, N. Y. 290 pages, Price \$7.50.

The two authors, who have spent over twenty years in research work on timber decay problems, at Forest Products Research Laboratory, England have written this book on their own actual experience. The successful preservation of wood by chemicals was first achieved on a commercial scale about a hundred years ago, and since that time large quantities of timber have been treated with various preservatives. All available information has been summarized about the different types of decay affecting both soft and hard woods, as well as various timber structures such as buildings, boats, aircraft, as well as rotting of poles and fence posts and their treatment. In addition research on forest and timber disease is being taught in the Forestry Department of many of the larger universities such as Yale, Minnesota, Idaho, Michigan and others. This book would be useful to research students and foresters and users of timber.

Garden in Your Window, by Jean Hersey. Published by Prentice-Hall Inc. 70 Fifth Ave. New York 11, N. Y. 272 pages, price \$3.

This very interesting book covers indoor gardening from fern to bulbs, and from cacti to terrariums. The section on growing orchids in the home is very interesting, it covers three chapters and anyone interested in growing rare plants would get much information from reading what the author and her husband have done with orchids, very successfully. The author gives "A dozen varied Gardens" which would give a good choice of flowering and foliage plants for your window garden. In addition to the authors wit and charm and frequent detours into flower lore and legend, Gertrude Howe has added amusing pen sketches to make the book so interesting. There are many photographic illustrations by Herbert Gehr, too, of plants, orchids, childrens indoor gardens and a window garden in color, with all plant names given. At the close of the book a list of seed companies and nurseries where a wide variety of garden seeds, plants and supplies can be obtained.

The author has written articles on gardening and travel in such magazines as *LIFE*, *HOUSE AND GARDEN*, *BETTEH HOMES AND GARDENS*, *LIBERTY AND FAMILY CIRCLE*. Also the author of "Halfway to Heaven" and "I Like Gardening." A good book to have in your library, if interested in house plants.

Rhododendrons, by Kingdon Ward. Published by Pellegrini & Cudahy, 333 Sixth Ave., New York 14, N. Y. 128 pages, price \$2.50.

The distinguished author of this book has given its readers all the essential information that the amateur grower of rhododendrons needs to know of this beautiful flower. He has discussed cultivation, soil needs

and propagation, and how to choose the varieties best suited to your garden, as trees and shrubs and a special chapter on Dwarf Rhododendrons suitable for rock gardens and edging. Azaleas, greenhouse rhododendrons and hybrids; another chapter well covered. The author has spent over 30 years plant hunting in Tibet and other far eastern countries and has described this flower in their native homes. Today there are grown 500 or 600 species and varieties in cultivation and at least as many hybrids. From being the Cinderella of the gardening world it has become the Prince Charming.

(Continued from Page 66)

Berlin, it has never succeeded; and though it makes vigorous growths during the summer, they are frequently cut back in winter and it has never got beyond a few feet high."

Fourteen years ago I received cuttings of this Poplar from Kew and now have trees of it fully forty feet high while an isolated tree is about thirty-five feet tall and has a diameter of about fifteen inches. It is one of our fastest growing trees and seems quite immune to the leaf rust that so often disfigures our native balsam poplars; not only that but it seems able to transmit this immunity to the hybrids that I have raised between it and our native balsam Poplar.

While at Kew in the summer of 1947 I visited the specimen of *Populus tristis* from which the cuttings sent me had been taken; apparently it has done much better since Bean wrote about it but it is still not more than twenty-five feet high and only about five inches in diameter.

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FRUIT AND VEGETABLE NOTES

By
F. X. Wallner



All of the glass of our greenhouse and sash frames was coated with plenty of Kansas top soil, and if that much dirt was left over the near-by states, surely more than two or three inches, has vanished from the state of Kansas. I like the way Mrs. McArthur of Huron writes up the Garden section of the Journal; both the Journal and the Oregonian, of Portland, put out a garden section every Sunday, that is the best I have seen. I made a special effort to send one or more copies to every club in the state, and of the hundred or more sent, I did receive several thank you replies. One of the younger top potato growers of southeastern South Dakota believes in getting the best seed stock obtainable. While at the meeting of the Iowa Vegetable Growers Society last fall, he bot 30 bags of Canadian seed at a very high price which was doubled by the express charges, so that I am sure it's the highest priced seed planted here. Also for the testing he bot some northwestern North Dakota seed to compare with the other seed. This may be the beginning of certified seed growing in Minnehaha county. While on the subject of potatoes, a friend figured that a bushel of potatoes, made into chips, at 20 cents per bag of four ounces, would be \$4.80 a bushel. Surely you are wrong, your dot should be at 8 so a bushel would bring \$48; some chips, but there is some waste to be figured also. A box of large white trilliums, Oregon grape and plenty of moss that looks like small evergreens also about 20 Synthyris, or Queen of Spring have come from Key-Lew Acres, Oregon, where I spent two months making a tangled woods into a beauty spot. The blue Synthyris, the first February wild flower of the woods, is repotted and will be shown to Garden club members. Also the Mountain Beavers, or "Boomers" that cut down

some evergreens I planted have been caught or shot and the water wheel is still going. Secretary Fitch, in his last News Letter, states that 30,000 carloads of potatoes are made into potato chips every year in this nation. He tells about rich Iowa potato growers looking over land in the Rio Grande Valley of Texas, and that land is selling for \$450 per acre, that has never been planted. Most of our plants are looking nice and the first tomatoes I transplanted will be plenty tall by the time they should go to the field. Some Garden Club member will be given the task to check six tomato plants transplanted April 10th and six seed sown April 16th and transplanted about April 26th. The terraces being built on the steep hillside on the Lincoln county place was delayed, but is about finished and we hope it works, as planned. The new tract also has work to be done as there is a big low place that should be filled in, and also drained, but the home place is being cut up still more, and today a block already seeded to onions may have to give way for a building. I may have to give up my transplanting of seedlings, as I am called to show someone a tract of ground or run out to one of the other places. Bob also has the notion we should live out on one of these places. Here is something more about the new high yielding bean mentioned by Mr. Graves, in a recent issue, taken from a Dept. of Agriculture release:

"This is a reminder to home gardeners who are planning to plant the new Topcrop string beans for the first time this year. Topcrop yields its crop in a more concentrated period than its garden rivals. This is a great advantage for the commercial crop, and can be no disadvantage in the home garden, provided the gardener plans accordingly.

The U. S. Dept. of Agriculture feels that it has reason for justifiable pride in Topcrop as developed by Dr. W. J. Zaumeyer. Topcrop is winner of the 1950 Gold Medal among the All-American selections. Seedsmen who have built up a supply of seed are featuring this new vegetable. It is recognized for its high quality for eating fresh from the garden, for canning, and for freezing. It is re-

sistant to the common bean mosaic disease (one of the worst and most widespread diseases of snap beans) and also to New York 15 mosaic. It has averaged much higher yields than the common varieties and in some tests it has yielded nearly double the crop from its rivals.

An outstanding quality of Topcrop is that it yields this big crop practically all at once. Market growers will get their full yield in two pickings. Then Topcrop will have yielded itself out and a third picking will not pay. This quality may be equally desirable in the home garden, provided the gardener is planning to can or freeze a good share of the beans. The high yield will be welcome, and it is easier to process a full winter's supply in one or two sessions than to handle many small lots. But—and this is the warning or reminder—if the garden plan calls for a continuing supply of snap beans thru the season, the gardener will do well to plant only small amounts of Topcrop at a time. Then, keep the supply of high-yielding Topcrop plants coming by repeated plantings every 10 days or two weeks. Topcrop comes into bearing in 7 weeks."

JUNIOR CLUB NOTES

(Continued from Page 72)

grow with the years, and never fade.

No two gardening seasons present the same promise or problem, new plants are constantly introduced, or the gardener may develop his own hybridizations, new birds are discovered, or we miss the old ones and search for ways to lure them back, skill in flower arrangement is learned and improved, and new ideas for flower shows lead to improvement in this fine field of entertainment and education. All this, and more, juniors and adults can do together, giving parents and children one common meeting ground, and city families particularly need to take advantage of every such opportunity.

As gardeners we have a moral obligation. Even tho we pay a price for the soil we till, the Almighty has entrusted us with its care. We are His trustees, obligated to keep a balance in the account and assure a continuation of this land of plenty.—Prairie Farmer.

ROADSIDE PLANTING

By
J. M. Atkinson

The State Horticultural Society and Federated Garden Clubs at our annual convention in Highmore voted on a program to plant Hopa Crab Apple trees along the highways leading into towns and cities of South Dakota.

This planting should accomplish a three-fold purpose: Add beauty to our highways; honor N. E. Hansen who originated the Hopa Crab, and act as a shelter to catch snow and harbor wild life.

Last fall Mr. Dybvig, president of the State Horticultural Society and myself, representing the State Federated Garden Clubs, met with the State Highway Commission. We were extended every courtesy and consideration possible and the commissioners seemed to be intensely interested in our program, suggest- however, that in some places it would seem advisable to make a planting of several rows rather than the one we had suggested, even mentioning that a row of lilacs in front of the Hopa Crabs might be more effective.

At this time we were asked by the commission to have the various clubs in the state appoint local committees to decide upon where they considered suitable locations for planting adjacent to their towns and send a legal description to the commissioners that they might have a representative to look over the proposed location and if suitable, start proceedings to acquire the necessary property.

Also, I have had several opportunities to talk to our State Forester, Harry Woodward, Jr., in regard to roadside plantings and am assured that we will have the hearty cooperation of the State Forest Service in this undertaking. Mr. Woodward made the suggestion that in some places it might be advisable to plan a small roadside park at the edge of town incorporating a planting of Hopa Crab trees in the layout.

I am informed there are several localities in eastern South Dakota where the state already owns right-of-ways suitable for planting.

MAGAZINE ♦ North Dakota

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We have found in our many years' experience with peonies that they can be planted in the spring just as well as in the fall. This spring we are carrying almost a complete line of the very best varieties. Our roots are large and many of them will bloom yet this season if planted early.



FLOWERING CRABS

When Dr. Hansen of Brookings, S. D., sent out the Hopa Flowering Crab in 1920 it opened a new horizon for beautiful flowering trees in the colder sections of our country. Since then many beautiful new hardy crabs have been developed.

We are offering some 12 or more fine varieties this spring. We also have a complete line of the latest in hardy Chrysanthemums, beautiful Iris, 3 different and distinct kinds of Bush Cherries, new Plums, new Apples, etc.

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If your club is interested, pick several locations you think suitable for planting and send legal descriptions

to the State Highway Commissioners so that they can check as to advisability of their use.

BOOK REVIEW

By

Mrs. Morris Harter



Mrs. M. Harter

Flower Gardens for the Amateur, by Alfred Carl Hottes. Published by Midland Publishers, at Forest Park, Ill. 160 pp. Price \$2.95.

This book may be small but it packs a lot of information on how, when and where to plant and grow annuals, perennials, bulbs, roses and shrubs. In the chapter on annuals, one can decide what to use for tall background flowers, medium-tall plants and edging plants. There are lists of annuals at the end of the chapter to fit your own requirements whether it be a rockery, poor soil, hot dry places or shade, plus a list of foliage plants for arrangements. Perennials are discussed in the order in which they bloom. There are lists here too, as there are in the chapter on vines and shrubs, to help pick the right plant for the right place.

Mr. Hottes drew some excellent plans for annual and perennial beds

that will show your flowers to the best advantage. Just about anything you want to know in regards to planning your garden, planting it and the care necessary, will be found in his book. Organic gardeners won't agree with his recommendations for chemical fertilizers, sprays and dusts, but those that use them from necessity or preference will get adequate information. The index is a product of thoroughness. It shows how to pronounce some of the more difficult names.

MANITOBA NEWS LETTER

(Continued from Page 69)

temperatures kill the buds. While the plant is dormant and fully hardened the canes will stand -40 to -45 degrees F. without injury. The objective is a variety with a longer rest that will not spring into growth following a few warm days. Chief possesses the longest rest period of any variety tested so far, and has been used as one parent in local breeding.

High on the raspberry improvement of resistance to diseases. Diseases yearly take a heavy toll of the potential crop. Among the more serious and most difficult to control are the virus troubles. They are widespread, and not satisfactorily con-

trolled by spraying once a plantation becomes infected. The whole plant system is affected, but the symptoms are not easily recognized by the uninitiated. Since the causal factor is spread by an aphid, the best means of combating these diseases is to develop resistance to the insect. Our common varieties such as Chief, Lat-ham and Newman are susceptible. Herbert, Indian Summer and New-burgh carry the resistance. A population of 2500 seedlings in the Station plantings from the cross Chief x Indian Summer are being studied.

The other factors listed in these notes are receiving due attention.

Black raspberries appear inherently less hardy than the reds. All named varieties have been tested without finding one fully suited to Morden conditions. Several seedlings are under test now as possible hardy parents for crosses with Dundee and Bristol.

A combination of greater promise for the prairies is the purple raspberry. These are crosses between red and black varieties. They are intermediate between the parental types in most characteristics, including hardiness. Some promising seedlings have been made from the cross Dundee x Taylor.

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SECRETARY'S CORNER

By

W. A. Simmons



W. A. Simmons

According to Dr. Freeman S. Howett in the 103rd report of the Ohio Society two new apples have been originated and tried out at the Wooster Station and are considered worthy of a limited trial, commercially. These he described as follows: "Melrose first came into bearing in 1937 and it has been found to be an excellent all-purpose (dessert and culinary) variety. Contrary to expectations it has developed the best quality when harvested later than either parent, Jonathan or Delicious. It is picked prior to or at the time of Stayman and Rome Beauty. Furthermore, it keeps in mechanical storage (36, F.) until April. The fruits are medium sized, well colored and attractive. It is similar to Jonathan but somewhat larger. The fruits have a tendency to russet easily but are resistant to if not immune to Jonathan spot. The fruits make excellent pies, apple sauce and freeze very well. Young trees have come into bearing early and have yielded very well, to date. It would seem that the variety merits limited commercial trial as a variety to follow its parents in season and to supplement Stayman and Rome Beauty. Franklin is an exceptionally high dessert quality variety of the McIntosh type. It follows McIntosh somewhat in harvesting season but must not be kept later than December in mechanical storage. Similarly to McIntosh it is susceptible to scab and must be handled carefully to reduce mechanical injuries. The fruits are not quite as large as McIntosh. They are well colored and have pleased everyone with their high dessert quality. Young trees have come into bearing early and yield well up to date. Here again the variety would seem to have a distinct place where a retail or roadside market can be utilized for their disposal." For those that have learned grafting it would be interesting to

try some of these top worked on Virginia crabs. Under date of April 11, Mrs. E. J. Langley of Rocklake, N. D., writes as follows: "It always seems to me that there is so much unselfishness, brotherly kindness and generous sharing of knowledge and experience goes into your little magazine. We will miss Mr. W. E. H. Porter's part in it. He was an amazing person. I am sorry we didn't visit him oftener. We still have snow and the lake is icebound."

Here is something that should interest our beekeeper members, those brave, intrepid boys that refuse to quail before the hot stuff delivered by their charges:

"Share cropper' bees will have a chance to prove the worth of their work in clover fields this season. Bee specialists of the U. S. Dept. of Agriculture are looking forward to some of the records of earnings as likely to encourage more farmers to use more bees. For years the Federal bee culture men have been pointing out that in many circumstances the value of bees as honey gatherers and beeswax makers is only a fraction of their real service to agriculture; that the value of the work they do in pollinating fruit crops—and particularly in legume crops grown for seed—is likely to be many times greater than earnings from honey.

A 'share cropping' experiment has been proposed by F. B. Paddock, Iowa state entomologist as a way of getting more bees into the clover fields. In Iowa the average production of clover seed is slightly less than 1 bushel to the acre. But if there are plenty of bees—say four colonies to the acre—within easy flight distance of the clover field, the yield may go up to four bushels to the acre. With clover seed selling around \$40 a bushel, there is an opportunity for bees to make a profit for someone.

But the clover growers and bee keepers have not been getting together well enough. One reason for this, says James I. Hambleton, U. S. Dept. of Agriculture bee specialist, is that merely moving a rented colony of bees close to a clover field does not guarantee that the bees will work in that field. A neighbor's field or some other crop may attract the bees more.

This situation helps explain why beekeepers say that a going fee of

\$2.50 for rental colonies is not enough and farmers have not been willing to 'gamble' even that price.

Under the share cropping plan the grower and the beekeeper would each speculate in hope of profit. The farmer would not pay cash rent. The beekeeper would move in his hives of workers and would take as his pay one-half of the yield of seed above the average of one bushel. The beekeeper would take over most of the 'gamble.' But if a clover field yielded 4 bushels the earnings of the bees might amount to a half of the extra 3 bushels, or \$60 or more for the 4 colonies required."

April 25th. Or is it January? We are still awaiting the coming of spring, with plenty of flakes of snow floating around today. Our grandfathers tell of a year in the early part of the last century that they called the year without a summer. This year is getting a pretty good start on that sort of a year. In the meantime we are missing the fun of pulling a lot of weeds, as none have been hardy enough to show up, as yet.

Ouzels or Dippers, grayish-colored song birds about the size of a robin, are very much at home in the water. Not only do they stroll about on the bottom of swift streams looking for insects, but they frequently fly under water using their wings and tail as tho in the air. Covered with thick, tightly fitted feathers, they can remain in ice cold water a long time without chilling.—Capper's Farmer.

Foxtail said that the American people spend more money on government than for food and they got more bellyaches out of it too. Another wise philosopher figures it would be well just to give the country back to the Indians. When they had it there were no taxes, no national debt and the women did all the work.—Maryland News Letter.

Definition: Grass: The green stuff that wilts in the yard and flourishes in the garden.—Noel Wical.

Fat Stuff

We feel for Horace Jones of the Lyons News who says he almost rebelled when he received a letter addressed to the fat salvage editor.

PERENNIALS

By
Mrs. H. B. Crandall

Perennials are nearly ever-living plants and may be the backbone of all gardens in temperate climates. They are more satisfactory practice material for the beginner at gardening and the standby of the experienced gardener.



Lona Crandall

The ancestors of most of our modern perennials can be found growing wild in the fields of the nation, but the cultivated and hybridized plants which we find in gardens are far removed from these distant cousins. And yet, the experienced gardener knows that he must guard constantly lest his plants form seed from which will grow, ultimately, seedlings which will gradually revert to the ancestral plant, so vigorous that they will crowd out the cultivated sorts.

Only a few varieties are satisfactorily propagated by seed. Some plants produce seed either naturally or by hybridization which will dependably produce named varieties of the species. Some of these are delphinium, painted daisies, shasta daisies, oriental poppies, scabiosa, coral bells, lythrum, penstemon, and so forth. A complete list can be found in a good seed catalog. Seed from iris, for instance cannot be depended on to produce any named varieties, nor even a desirable plant, nor can the seed of chrysanthemum, or phlox. A few perennials, including gas plant and certain lilies, produce seed from natural pollination in the garden which will produce plants true to the parent plant.

A more dependable method of propagation is by cuttings; others do better from root cuttings. Some of those which can be increased readily from root cuttings are phlox suffruticosa, oriental poppy, arabis, gypsophila, anchusa. Cuttings may be made in the early fall, or in very early spring, as soon as growth starts. If it is done in the fall, the cuttings, about three inches long,

should be rooted in sand in a cool greenhouse or shaded coldframe. They must be covered with glass to insure moist air during the day. The glass may be removed at night. As soon as growth starts the plants may be removed to another coldframe and planted in soil, or the dependably hardy sorts may be planted in the permanent border and adequately mulched at the proper season. Stem cuttings are started in the same way, and such plants as lythrum and carnations will root from stem cuttings. Nearly all perennials can be divided, and most of them should be taken up and divided every three years. A very few resent being disturbed and can be left without division almost indefinitely. Peonies, gas plant and monkshood are some which require several years to become established and do not deteriorate if left undivided. They increase very slowly but should be allowed space when planted to develop to their mature size.

The first step in the planting of any perennial border is the preparation of the soil. Unless black loam is at least a foot deep, the bed had best be prepared by removing the topsoil, placing it in a pile to the side. If the clay below is very fine, holding the water as though confined in a concrete pool, it should be removed to a depth of two feet. In the bottom of the excavation coarse gravel should be filled for three or four inches. Clinkers, ashes, or waste stucco or concrete may be used for this purpose if it is in small chunks. The clay which was removed may be mixed with an equal amount of rotted manure and some sand and used to fill as much as needed before the top layer of black loam. A third rotted manure should be mixed with the topsoil, and the bed allowed to settle at least a week before being planted.

The amount of sun the bed receives will be a deciding factor when the selection of plants is being made. It is a waste of plants, soil and energy to attempt to grow sun loving plants in the shade, or shade and cool earth loving plants in the blazing sun. If your border is shady you may choose from the following list, and enjoy success: Monkshood, snakeroot, delphinium if there is sun part of the day, thalictrum, astilbe, campanula persicifolia (peach bells) bleeding

heart, plantain lilies, mertensia, single peony, phlox, spiderwort, lily of the valley, coral bells, iris pumila, primula, and of course ferns. A few plants depend on perfect drainage more than any other factor for success, and if drainage has not been adequately provided at the time of preparation, it may be better to omit oriental poppies and lilies and certain other varieties from the border.

A few perennials require an acid soil, certain others prefer a sweet soil. It is difficult to try to provide both conditions in one border. Consequently the gardener will enjoy greater success if he will arrange his planting so that those plants which like a top dressing of manure in the fall or spring, or acid peat moss, or a sprinkling of lime now and then are grouped together in the same border. For instance, peonies must not have their crowns covered with manure, neither do delphinium like it, nor iris. All these plants prefer a feeding of bonemeal in the fall with only a coarse mulch of cornstalks if anything to hold the snow over winter. Here the soil will naturally be sweet enough for all these plants, but if much manure or compost has been worked into it, they will all do better for having a little lime mixed with the bonemeal and worked in around the plants. Pulverized limestone should be used for this purpose, not the hydrated lime. Some wood ashes will add the needed potash to this bed and result in stiffer stems and better root systems. If you should have instead a border of kalmia, lupines, rhododendron, azaleas, and a number of others, you would find the going very trying in this area where our soil and water is naturally sweet, and must be treated or altered constantly to maintain the necessary acidity for these plants. It can, however, be accomplished by adding aluminum sulphate to the water used to water the plants, and by applying a top dressing of acid peat moss or leaf mold from underneath oak trees fairly frequently. Aluminum sulphate may also be worked into the soil, and it may be desirable to apply aluminum sulphate to some borders where acid loving plants are not grown.

Not infrequently plants will become yellow. This can be caused by

PERENNIALS

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a disease, but even the disease is thought by some to be a nutritional deficiency. Iron can be added to the soil or is sometimes sprayed on the plants for quicker effect, but it often will be found that the trouble is not a lack of iron in the soil, but too high an alkaline condition resulting in the iron being locked in the soil, unavailable to the plant, and that by increasing the acidity the iron will become available and the trouble corrected, and more permanently that if iron had been sprayed on the plants. *Chrysanthemums* frequently develop yellow, and the condition can be corrected by the addition of aluminum sulphate to the soil in most instances. Yellow leaves on *delphinium*, although they prefer a sweet soil, respond to this treatment, although superphosphate and its organic conveyer, bonemeal, will usually sufficiently acidify the soil to prevent yellow leaves on *delphinium*.

Perennials are not usually attacked by diseases or insects if they are well grown. Even rust on phlox is less troublesome if the plants are vigorous. It is advisable to spray the ground three or four times in the early spring, however, with bordeaux mixture to reduce the prospect of rust and blights. It is most necessary where phlox, peonies are growing. Certain years will develop a crop of aphids. It may be that the wholesale spraying for any and all insects will result in uncontrollable aphids every year. Unless weather conditions are favorable, we do not usually have aphids on the perennials, the lady-bugs and their voracious children taking care of the few that do hatch. It has been necessary, however, the last year or two, to spray with nicotine sulphate where aphids threatened to destroy *delphinium* and certain other plants. If the leaves curl on any plant, aphids should be suspected and can be found, if causing the curling, on the underside of the leaf. If the plant is already in poor condition from the infestation, it may be desirable to cut back the infected growth and destroy it. The young shoot showing above the ground should be sprayed immediately and again a week later, the plant

fed and watered and kept growing vigorously and watched for infestation. Rust caused by red spider can be prevented by dusting with sulphur, but the new azofume 10, a dust ready to use, is more successful. Crown rots are usually caused by poor garden practice, namely moving at the wrong season, poor drainage, or covering the crown shutting out air.

Finally, the flowers of most perennials are desirable for cutting and using in arrangements in the house, for church, and for flower shows. This should always be considered when selecting the plants to be grown. If your house is decorated in shades of brown and copper and yellow, you will hardly enjoy red or pink flowers for arrangements in these rooms. Likewise, orange lilies will not be usable in rooms decorated in shades of rose. Red flowers are not often wanted indoors, unless a room has some red used in the furnishings, or has only soft shades of green or blue, taupe or some such neutral shade used in the color scheme. The idea to be followed is that the colors of your flowers shall be usable in your house or for the corsages you will wear. Some perennial flowers must be picked at certain stages of development to remain in good condition in arrangements, but all flowers on perennial plants should be picked before seed begins to form unless an occasional bloom is left intentionally to form seed. Many types will continue to bloom if the wilted flowers are kept removed, and all will present a more attractive appearance and continue in a more vigorous condition if they are not permitted to produce seed.

Certain types require more water than is provided by rainfall, and that should be known and provided where necessary. Mulch is necessary the first winter for new borders to prevent plants being heaved out of the ground in the spring, or even the winter thaws. The mulch should not be applied until after the ground is well frozen else it will attract mice, and it should not be removed in the spring until the first frost is out of the ground, but should be removed before new growth starts. If there is not an abundance of rain, water-

ing should be started as soon as the soil is dry, for the natural rapid growth of early spring requires an abundance of water from some source. If it is not present the plants may die, and there certainly will not be normal bloom. Of course, any artificial watering must be done thoroughly so that the moisture reaches the deepest roots.

MERTENSIA

By

Mrs. A. W. Davidson

Mobridge, S. D.

The ubiquitous "first" robin has been sighted for the umpteenth time. The little maltese catkins in their soft fur jackets have climbed to the tips of the pussy willow. The pasque flowers with their downy violet petals have thickly starred the hillsides across the river. In the ravines and along the edges of the "breaks" lie drifts of fragrant "snow," the wild plum and cherry blossoms. Upland from the "breaks" and across the rolling prairie, in the grass tinged with its first tender green, nestle countless thousands of clumps of slender bluish green leaves, with erect stems six to eight inches tall—topped with tight pink buds.

A day or two of warm sunshine and the pink blue buds open into tiny bells of an almost indescribable blue; the blue of the mountain lake, of clear June sky—a blue without a hint of violet. Pink buds, blue bells, thousands of them to make a blue shimmer of loveliness above the prairie grass—the *Mertensia* is in bloom!

Soft breezes tinkle the small blue bells, the voice of the meadowlark is heard in the land, and spring is here to stay.

The *Mertensia*, sometimes called the Virginia bluebell, and many other names, is a perennial. It has been called a biennial, which it is not. It propagates from seed. The tap root burrows deep, the case with many of our prairie perennials. In an old plant I have never been able to dig out the entire tap root, though it transplanted very readily even in full bloom. After blooming the whole plant disappears.

It will grow and multiply in any location and almost any soil, in shade, sun, or under trees. During the drouth years of the 30's it disappeared from our

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GARDEN CLUB GLEANINGS

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as a whole because the club is planning to use it for their roadside planting projects. Funds from their spring plant sale will be used to defray expenses of their delegates to the convention. Aldred Monteith, Marjorie Kennard and Inga Olson are the spark plugs of the organization.

Fair City Garden Club of Huron is among the leaders in the project of beautifying the approaches to their city. They left no stone unturned on which they might stumble later in their plans. Here is the way Mrs. Helen Merritt describes their efforts: "We received the go-ahead signal from the State Highway and the State Park Department to submit our chosen sites and they will check them, survey them, and then take steps to purchase. We have taken the matter up with the City Park Superintendent the Commercial Council, the Junior Chamber of Commerce, etc., and all are very enthralled. Last week our club president, Mrs. McArthur, and myself all met with some of the above officials and toured the outskirts, choosing out sites, and Mrs. McArthur has submitted them to the state. Acquiring the rights to the land may involve some red tape and so take some time, but we would like to be ready for the actual planting yet this spring." Flowers of the Bible, by Mrs. A. W. Palm, and Mrs. Lewis Severance's presentation of Flower Arranging for the Church were timely topics for the Easter month, and were greatly appreciated.

Dell Rapids Garden Club was the proud host to a total of 130 out-of-town gardeners, representing 18 clubs in South Dakota and Minnesota, which turned out for the invitational program and Tea in April. The basic colors of the hemerocallis, the feature-flower of the day, were effectively used by the Tea committee to create a festive atmosphere for the crowd. Gay streamers of yellow and green, a luncheon table with lace over a yellow underlay and centered by an arrangement of daisies were used. The beautifully decorated cakes and the mints further carried out the color scheme, and the yellow dollies on each plate added the final touch.

Mrs. Peter Schmidt was chairman of the Tea, while Mrs. Lawrence Elsinger, president of the club, was in charge of arrangements. Such a gathering of flower and garden fans is a high spot in any club year. Clubs represented were Sioux Falls, South Sioux Falls, Wednesday, In and Outdoor, Nature Lovers, Home Garden Club of Britton, Good Earth, Brookings, Fair City, Huron, Canton, Flandreau, Madison, Lyons, Tri-State, Watertown Jasper, and Pipestone. Club with the greatest representation was the Eden Garden Club with 13 present, while Mrs. Ray Jarrett and her mother of Britton came the greatest distance.

MERTENSIA

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locale completely. In 1939 I found one plant in a ravine, brought it home, and knowing the characteristic vanishing act, ringed it with a small band of steel from some machinery. That plant still comes up every spring, though spreading all around it are hundreds of its offspring. The seedlings are delicate. Pull any weeds by hand rather than use a weeding hoe. I have found a sack of leafmold even better than hand weeding. It smothers the weeds. The small Mertensias pop up through the leafmold.

It stands drouth; and one bed in my yard in the winter of '47 lay under two inches of ice all winter. I didn't lose a

plant. In fact it was almost the only thing I didn't lose that terrible year.

The Virginia blue bell, called Mertensia in the catalogs, is not the same plant, though probably of the same family. However Will and Claude Barr have the native plants. The Mertensia has been called an escaped flower though I doubt that. It seems to me to be indigenous to nearly every state in the Union, though never in such cerulean abundance as on the mid-South Dakota prairie.

One early February morning in Mexico, I climbed a grassy slope in the warm sunshine. Lonely and homesick, in my mind I changed the mesquite and ironwood into plum and choke-cherry, and tinged the brown Mexican grass with green. Suddenly I stepped carefully, for at my feet in the brown grass was a small blue flower, a little blue bell with pink buds; and from a mesquite bush a few yards away came a familiar trill. A bird with a V-shaped black collar over a golden speckled throat, poured out that perfect serenade to Spring that only a meadow-lark can achieve. The flower was a Mertensia or a reasonable facsimile thereof, the bird indisputably a meadow-lark! Softly fragrant came the scent of plum blossoms and choke cherries, and there were, through the mist in my eyes, a thousand small blue bells with pink buds. In my heart I said to the singing bird and the small blue flower, "Let's us three South Dakotans go home!"

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