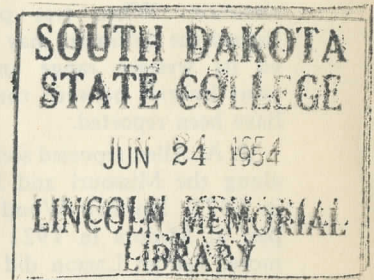


# DAKOTA HORTICULTURE

JUNE, 1954



Rapid Creek, in Rapid Canyon, a few minutes drive from Rapid City, is fed by clear, cool springs and provides many beauty spots for recreation and pools of trout for the fishermen.

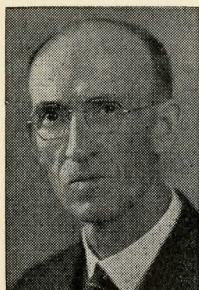
*Courtesy of the Chamber of Commerce of Rapid City, S. Dakota.*



## BULLOCK'S ORIOLE

by

O. A. STEVENS



O. A. Stevens

Bullock's oriole is a western bird that is similar to the Baltimore oriole. The male has a black cap and a black throat but, except for a line through the eye, the whole side of the head is yellow connecting with the yellow under-

parts. Both species may be found in the western parts of the Dakotas but in general the "treeless plains" make a broad and effectual separation. At least this may have been the original situation. When tree plantings increased the Baltimore may have extended its western range and in recent years hybrids between the two species have been reported.

J. A. Allen reported seeing Bullock's along the Missouri and Heart Rivers in 1875. Norman Wood secured one pair at Medora in 1921 but saw no more. Adrian Larson did not see any in twelve years of observation in McKenzie County. Houston reported the birds rare at Yorkton, Saskatchewan and Farley did not see them at Battle River, Alberta though he found the Baltimore fairly common. On the west coast Bullock's extends into southern British Columbia. It nests southward into Mexico a bit and spends the winter in Mexico.

The bird was first described in 1827 by William Swainson, an English ornithologist contemporary with Audubon, from specimens secured in Hidalgo, Mexico. He named it for William Bullock, who was a jeweler and goldsmith by trade but was interested in collecting scientific and other historical material. He traveled in Mexico and the United States and at one time planned to settle in Ohio.

Some related species found in the southwestern states are Scott's oriole, which resembles the Baltimore but has pale yellow underparts and the hooded oriole which has yellow on top of the head. Mrs. Bailey wrote that in southern California where both hooded and Bullock's occur, the hooded ap-

peared later and stayed in the brush where it is less seen than the Baltimore and Bullock's.

Mrs. Bailey thought the Bullock's were especially fond of trees along irrigation ditches and streams where sometimes low growing willows would have numerous nests. The birds seemed to prefer larger trees if such were available and frequently the nests would be placed in bunches of mistletoe.

The nests and eggs are very much like those of the Baltimore oriole which is so familiar to us. Taverner called the Bullock's song "rather less musically pleasing" than that of the Baltimore. If it frequents human habitations less it might be more pleasing for Olive Thorne Miller's description of the young orioles as the crybabies of the bird world is rather forceful if a nest is close to the house. However

(Continued on page 68)

## IT CAN'T BE DONE

by

MARY LOUISE KINYON

*I think it's spring—I love best*

*When nature wakens from her rest  
The dull brown seeds and little roots  
Suddenly sent out light green shoots  
The fruit trees blossom with perfume rare*

*T'is true, my love, spring's in the air.*

*Though I confess it's spring I love*

*When summer skys smile above  
I gaze upon the leafy trees  
Sit in the shade to enjoy the breeze  
As the hot red sun sets in the west  
It seems I must love summer best.*

*Hazy Autumn comes around*

*Much too soon I'll be bound  
I gaze upon the rippling grain  
Hope we harvest before the rain.  
A big round yellow harvest moon  
For Autumn—my silly heart goes boom.*

*Winter blasts her way in*

*Whose heart could this cold season win?  
I wake to trees sparkling white  
As sun hits snow—a dazzling sight.  
My heart swells up within my breast  
Do I love winter time the best?*

*All seasons have a special charm*

*I love them all—What's the harm?*

JUNE, 1954

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### TABLE OF CONTENTS

	Page
Bullock's Oriole. O. A. Stevens.....	66
It Can't Be Done.	
Mary Louise Kinyon.....	66
Manitoba News Letter. W. R. Leslie..	67
Junior Garden Club Page.	
Ruth Habeger .....	68
Lythrum and Lilies. P. H. Wright.....	69
President's Address.	
Mrs. Leo Monteith .....	70
My Experience in Horticulture.	
R. L. Wodarz .....	71
Book Review. Mrs. R. G. Ferris.....	71
Programs. Alice H. Platt.....	72
Chemical Weed Killers. L. C. Ayres....	73
Your Yard and Garden.	
Dr. Leonard Yager.....	74
Garden Gleanings. Mrs. R. G. Ferris..	75
Letter from Florida.	
C. Richard Hartmann .....	75
Secretary's Corner. W. A. Simmons....	76
Ninth and Tenth Robertson Awards.	
H. R. Woodward .....	77
Newsletters. H. A. Graves.....	78
Fruit and Vegetable Notes.	
F. X. Wallner .....	79
Siouxann Tomato. R. L. Foskett.....	80

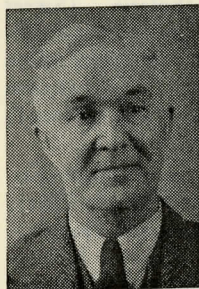
DAKOTA HORTICULTURE



## MANITOBA NEWS LETTER

by

W. R. LESLIE



Leslie

### *Pests of Ornamentals*

Ornamentals do their best and provide the greatest degree of satisfaction when they are healthy and free from pests. There is no beauty in a spruce or pine tree heavily infested with pine

needle scale; a rose whose petals have been eaten into by the rose curculio; a gladiolus which has been blasted by feeding of thrips; or a virginia creeper which has lost its leaves in mid-summer because of leaf hopper damage. These pests, and others, such as mites and aphids which attack ornamentals can be controlled, and when controlled will add immeasurably to the beauty and value of the plant concerned.

**Pine Needle Scale:** The eggs of the pine needle scale hatch about the first week in June. The young insect crawls about on the needles until a suitable place is found, settles down and commences to feed. It then secretes a white, waxy, protective covering. The insect can be controlled with dry lime-sulphur, 1 lb. in 12 gals. of water, applied while the insect is active, usually about the first week in June.

**Rose Curculio:** The rose curculio, a snout beetle about one-quarter of an inch in length, is bright red on top and black on the underside. It feeds on the buds and also will cut the buds off. This insect may readily be controlled with a spray of DDT, 1 tablespoon 50 per cent DDT wettable powder in 1 gal. of water, applied as soon as the buds or beetles appear, and at 10 day intervals if necessary.

**Gladiolus Thrips:** The thrips are small, active insects that suck the juice from the plant causing white spots on the leaves. Flowers, if they develop, will be small. A spray of DDT, 1 tablespoon of 50 per cent DDT wettable powder in 1 gal. of water applied when the plants are 10 inches high and at 10 day intervals will control the thrips. DDT powder should

be mixed with the corms when they are stored in the fall to kill the overwintering stages.

**Leaf Hopper on Virginia Creeper:** The adult leaf hopper, a small, active greenish coloured insect with red markings, appears shortly after the leaves expand and feeds on the leaves by sucking the sap from them. A severe infestation will cause the leaves to drop off. The leaf hopper can be readily controlled with a spray of DDT, 1 tablespoon 50 per cent DDT wettable powder in 1 gal. of water, applied soon after the leaves expand and at 10 day intervals if necessary.

**Aphids:** There are a number of different species of aphids which attack ornamentals. They can be controlled with a spray of nicotine sulphate, 1 teaspoon 40 per cent nicotine sulphate in 1 gal. of water in which 1 oz. of soap has been dissolved. The spray should be thoroughly applied as only those aphids which are wetted will be killed. Malathion, 1 tablespoon 25 per cent Malathion wettable powder in 1 gal. water, may also be used.

**Spider Mites:** The spider mites are very small and greenish in colour. They usually feed on the underside of the leaves sucking the sap from the plant. Severe infestations will cause a white flecking or yellowing of the leaves and possibly leaf drop.

The mites can be controlled with sprays of Aramite, 1 tablespoon 15 per cent Aramite wettable powder in 1 gal. of water, or Malathion, 1 tablespoon 25 per cent Malathion wettable powder in 1 gal. of water.

**Pruning Shrubs** in the Canadian prairies is performed to good advantage in April and early May. Autumn pruning is dangerous as the large wounds cause much loss of moisture during the winter and the cut tissue may be injured by prolonged severe frosts and penetrating cold winds. Those shrubs on which flowers arise on one-year wood have the pruning delayed until after flowering. That means summer pruning. It is performed as soon as the flowers fade. In contrast is the class which bear flowers on wood of the current season's growth.

Pruning is for the purpose of growing a graceful, well-balanced specimen, to open up the centre for sunlight and air to bathe all the wood, thus encouraging formation of flower

buds on healthy tissue. It is desirable to retain the natural shape of the subject unless it is overgrowing its position or is serving as a clipped hedge.

**Spring Pruning:** (a) Among those cut back to short stubs near the ground before growth commences are Amprpha, Buddleia, such summer-blooming Spireas as Froebel and Anthony Waterer; Hydrangea, Hybrid Tea Roses, Sorbaria, and those Tamarix which are wanted to produce late bloom on long, young strong shoots. In this class are willows and dogwoods grown as coppice for their bright colored winter barks. (b) The second class requires thinning out of oldest stalks to ensure thrifty growth while retaining natural symmetry and character of outline. In this category are Shrub Roses, Flowering Crabapple, Cherries, Plums, Almonds, Dogwoods, Cotoneasters, Sumac, Elderberries, Philadelphia, Physocarpus, Symphoricarpos, Weigela and those foundation shrubs which are becoming overly dense.

**Early Summer,** immediately as flowers fade, to cause a flush of young growth for next year's flower production: lilacs, honeysuckles, spring-flowering Spireas, Caragana, Salttree, Clove Currants, Japanese Quince, Ninebark and Viburnums. Remove older branches low down so that there will be plant renewal by growth of strong new basal shoots.

Many shrubs require only a little pruning every 2 or 3 years as there is little tendency to form a mass of central stems. The gardener will be guided by each shrub. Pruning is undertaken only when the plant's condition indicates a need. Avoid long stubs by cutting flush to a main stem. Remove interfering branches, broken or injured parts and all dead wood. Use sharp tools. Cut at an angle rather than straight across the branch and to a bud pointing in the direction new growth is desired.

**Annual Flowers** are not now grown extensively at the Morden Experimental Station. Most effort is placed on perennials. However, one border is planted to improved strains of Petunias, Zinnias, Marigolds and that tender perennial which serves as a transplant annual, Antirrhinum or Snapdragon.

(Continued on page 68)



## JUNIOR GARDEN CLUB PAGE

by

RUTH HABEGER  
(State Bird Chairman)

205 N. Egan, Madison, S. D.



Miss R. Habeger

Your state chairman, Mrs. Milo Shultz, has asked me to give you some help with Junior bird study. I am glad to do this because I firmly believe that good principles of bird conservation can be taught to young

people if adults will give a little time and guidance to Junior study. Children can become eager, keen bird-watchers with little effort on your part. They will soon discover that half the fun of being out of doors comes from knowing birds. This interest usually continues to bring happiness through life and helps to make them bird conscious adults.

I would suggest any of these four ways to begin bird work with children, depending on your knowledge of birds. If you know very little about birds, you might start by forming a Junior Audubon Club. For 15 cents a child and \$1.00 fee for the teachers, you get four nice booklets with suggested study and helps. Write to Junior Audubon Club, 1000 Fifth Ave., New York 28, N. Y.

You can get children interested in feeding birds by starting a Sunflower Seed Planting Project (I have outlines of procedures). You might also make bird feeders for the sunflower seeds. (Audubon address above for bird feeders).

You can take children on bird walks. At first you may know few birds but with a good bird book, a pair of field glasses and a small group of eager children (perhaps 4 or 5), you can learn to identify birds easily. Try field work in winter or early spring rather than fall or summer when identification of immature birds is difficult.

You might offer your help as a bird guide to children's organization

or to the school superintendent. This is not as difficult as it may sound and you will find sponsors of clubs and schools eager for your help. Below is an outline I use for such guiding work.

1. Make arrangements with the superintendent or club leader to meet with a group of children you wish to help. Birds are abundant, colorful and easiest to see in late April and May. Ask several of your friends who know birds to help you by being a guide. You can handle nicely a grade of thirty if you have four helpers. Divide the group of children in small groups of 5 or 6 each. Then appoint a secretary for each of these small groups. It is the duty of the secretaries to keep an accurate list of birds seen by this little group and to give the report of their findings when all groups return to the classroom for a general discussion.

Before taking the children in the field, a five minute talk to all of them should be given. This is for instructions on how to keep records, the need of accurate observations, the territory assigned to each group (not over three blocks from headquarters) and the time all are to return to the classroom.

Ten minutes should be allowed after all have returned to the classroom for secretaries reports and general discussions. A composite list of all species of birds seen can be put on the blackboard. All doubtful species should be omitted for further research. Try to avoid competition between groups. Long lists may be inaccurate.

I hope you find some help in these suggestions. Feel free to write to me at any time for help.

### MANITOBA NEWS LETTER—

(Continued from page 67)

The Prairie Gardener in his helpful, meaty Sunday morning talks has recently stimulated a greating interest in annual flowers for the home garden. To provide guidance to enquirers, some classification is given here.

*Twelve Annuals for Outside Sowing:* Calendula, Centaurea cyanus (Cornflower) Cosmos, Dimorphothea (Cape Marigold), Eschscholzia (California Poppy), Godetia, Lathyrus (Sweet Pea), Lavatera, Papaver (Poppy), Portulaca, Reseda (Mignonette), Tropaeolum (Nasturtium).

*Annuals for Edging Beds and Borders:* Ageratum, Anagallis (Pimper-

nel), Antirrhinum (Snapdragon), Bellis (English Daisy), Dimorphothea, Brachycome (Swan River Daisy), Eschscholzia, Gilia lutea or Leptosiphon roseus, Iberis (Candy-tuft), Lobelia, Lobularia (Sweet Alyssum), Nierembergia (Cup-Flower), Portulaca, Sedum caeruleum (Blue Stonecrop), Tagetes, Tropaeolum (Dwarf Nasturtium), Viola (Pansy), Zinnia linearis.

*Climbers to grow on supports:* Cobaea scandens (Cup and Saucer Vine), Cucurbita (Yellow-flowered Gourds), Dolichos (Hyacinth Bean), Echinosystis (Wild Cucumber), Ipomoea (Morning Glory), Lagenaria (White-flowered Gourd), Lathyrus (Sweet Pea), Tropaeolum majus (Masturtium).

*Fragrant Annuals:* Centaurea moschata (Sweet Sultan), Chenopodium botrys (Ambrosia), Heliotropium (Heliotrope), Lathyrus, Lobularia, Mathiola annual (Ten Weeks Stocks), Mathiola bicornis (Night-Scented Stocks), Nicotiana alta (Winged Tobacco), Petunia, Phlox drummondii (Annual Phlox), Mignonette, Verbena.

*Foliage Annuals:* Amaranthus (Amaranth), Artemesia (Summer Fir), Centaurea gymnocarpa (Dusty Miller), Chrysanthemum, Kochia, Perilla, Ricinus (Castorbean).

*Everlastings:* Ammobium alatum (Winged Everlasting), Cotananche coerulea (Cupidsdart), Gomphrena (Globe Amaranth), Gypsophila (Baby's-breath), Helipterum (Rhod-anthe), Helichrysum (Strawflower), Limonium (Statice), Xeranthemum (Immortelle).

### BULLOCK'S ORIOLE—

(Continued from page 66)

their songs are so cheerful and their colors so gay that orioles are pleasant reminders of the tropics where they are more at home.

Orioles feed largely upon caterpillars, but like many other birds, they have a fondness for fruit when it is easy to get. Thus they sometimes provoke the displeasure of the orchardist.

Cephalonia, an island off the coast of Greece, is the native home of the Greek fir. It grows on the slopes of Mount Enos where it reaches a maximum height of approximately 60 feet.

**DAKOTA HORTICULTURE**

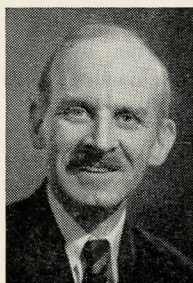


## LYTHRUM AND LILIES

by

PERCY H. WRIGHT

Moose Range, Sask., Canada



Wright

Lythrum makes such a display of color over so long a period, and its adaptation to the prairie conditions is so nearly complete that it will be an extremely popular flower for many generations to come. Therefore, any hints

that will prolong the life of lythrum are to be valued.

Lythrum, a plant taken from naturally wet locations, is nevertheless well adapted to conditions of only normal moisture. However, it is not able to thrive under extreme drouth, and so water should be supplied in sufficient quantity to prevent death. The critical period includes not only the growing period, but also the dormant period in the fall after frost has defoliated the plants. Roots of lythrum should not be allowed to remain in completely dry soil at any time.

Lythrum dislikes shallow planting. The buds that are prepared for next year's growing may all be shallow, and may be winter killed if snow is lacking after severe frosts occur. Even natural seedlings may have all their crown portion so shallow that they will die out. When one is planting lythrum he should put the roots deep enough that there is at least an inch of soil over the crown of the plant. I have put the roots so deep that as much as five inches of soil lay over the crown of the plant, with no bad result except that spring growth was delayed. A little delay in spring growth is undoubtedly a good idea, since the new shoots are sometimes caught by spring frost, and if their appearance above ground is delayed, the danger of loss by spring frost is reduced.

In about five years, the lythrum plant reaches its maximum, and after this date it begins to go back, unless renewed. When it is dug up for division, a few shoots may possibly be detached, but if the main root is to be divided, the job will have to be done

by a saw, since the root wood of lythrum is as hard as the wood of a tree. Sawed portions of the root have established themselves well on my grounds, and should succeed equally well elsewhere.

If one fears that the number of years that has passed since the crown was put deep has been sufficient to bring all crown tissue up near the surface again, he can protect the buds prepared for the next year by mounding the plant with soil to a depth of a few inches. Mulching for winter protection may be a good idea, but, whether or not mulch is applied, a little earth thrown over the crown of the plant is a good idea too, and is, I have a notion, to be preferred to mulching alone.

Lythrum transplants easily, and is relatively little set back by the need to re-establish itself. There is considerable variation in the hardiness of varieties. I have found the two originated in Manitoba to be the hardiest available; these are Morden Pink and Dropmore Purple.

### *New Colors in Hardy Lilies*

When the Soviet scientists succeeded in hybridizing couch grasses of various Siberian types with common wheat, all the world realized that the wideness of the cross made the achievement something of a miracle. When equally wide crosses are made in plants of less economic importance, it is not news of the same public interest, but the interest of the plant scientist is equal.

Lilies as we grow them in prairie Canada are predominantly orange in color, and Turkscap in shape, such as the common Tiger Lily with the bulbils in the axils of the leaves, and the Davidi types, generally similar, but with smaller flower, and more of them, brighter in color, and blooming nearly a month earlier. However, it is not generally realized that in the dwarf lily Cernuum we have a very different color, a mauve varying to mauve pink. Cernuum would be much more frequently planted if only it were a stronger grower.

The cross between Cernuum and the Davidi type of lily has been made at least twice to date. One of the successes was achieved by Dr. C. F. Patterson of the University of Saskatchewan, who, from the original hybrid has developed new varieties in the

second and third generation. In the fall of 1950 two of these were introduced, White Gold and Burnished Rose, and in the fall of 1951 two more, Rose Dawn and Pink Gem. White Gold is my choice of the first two, nearly white in color, but with a little cream on the face of the flower. Burnished Rose may be described as intermediate in color between the parents, and the name gives a general idea of its tone. The other two, being secured only last fall, have not bloomed in my garden yet.

The other lily specialist to succeed in making a like cross is William C. Horsford of Charlotte, Vermont, who used the Stenographer hybrid Edna Kean as the mate for Cernuum. The hybridity of the other parent gave him a greater chance of variation, and greater variation he has secured. The true pinks have been selected out for propagation, but the remainder of the selections are already available in very limited numbers. They are named Terrestrial Hybrids, and are of many colors, ranging from flesh color through yellow and bronze to deep red, and some of them are upright-facing lilies. The latter feature is important, for there is a great difference in effect between a lily flower that faces you and shows off its color to best advantage, and one that turns its back to you and its bright face to the ground. This upright flower comes originally from one of the parents of the hybrid Edna Kean, the ordinary Dauricum lily which is not unrelated to the native wild lily of our Canadian prairie northland.

Outside the area where the shapely and beautiful, but tender, trumpet lilies are fully at home, the lily has never properly been appreciated. The new range of colors should make a great difference to the popularity of the hardy lilies.

### TODAY'S CHUCKLE

If cars are built any lower, how can they run over pedestrians?

Gladys: "Does your husband still suffer from his neuralgia?"

Ethel: "Yes, but not nearly as much as the rest of us do."

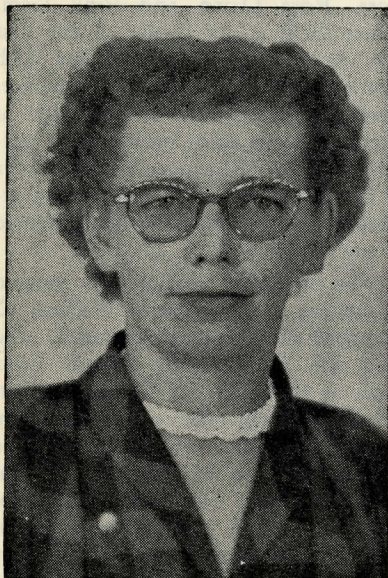
—ARGUS-LEADER



## PRESIDENT'S MESSAGE

by

MRS. LEO MONTEITH



This time of year with every minute of the day bringing new beauties I think of this quotation from Ralph Waldo Emerson: "To the attentive eye, each moment of the year has its own beauty, a picture which was never seen before, and which shall never be seen again."

Summer is such a busy time—we are all so bent on earning our daily bread—or getting it to the table, that too often we fail to taste it.

Think of this spinning globe among the stars, with its colored scenes and seasons, daybreak and nightfall—children, friends, food and flowers—surely no life, but is full for them who "remembers to live" it.

And then I chuckle, as I think of Uncle Pete who said "I never had a hankering to go on a vacation. I like it here on the farm. Where I loaf, I want some work handy to loaf from."

New officers have been elected to head the State Garden Clubs. May I thank my committee chairmen and every garden club member for their wonderful cooperation during my two years in office.

I have learned to know many of you personally, and many more through your reports and letters. It has been a thrilling experience and one that I will treasure.

Our growth and strength as a state organization has only been made possible by all of us working together.

My sincere wishes for continued success in the coming years. Let us transform our visions in garden club achievement in community, state, and nation into reality.

*Excerpts from 1953 Garden Club accomplishments:*

**Winner Garden Club**—Participated in the Flower and Garden exhibit of the Tripp County Extension achievement day last August and won one purple or grand premium, 3 blues, and 4 red ribbons with entries. Held a garden club hobby bazaar in September and sold \$60.90 worth of donated articles. Christmas gifts suitable for the local hospital patients were brought to the holiday meeting at the Mabel Read Home. Five members from this club attended National Convention at Myrtle Beach.

**Huron Fair City Garden Club**—This club of 37 members sponsors an active Junior Garden Club. They visited each school and distributed seeds and talked about flower arrangement. They also held an all-school floral arrangement program at the park. They helped the Juniors plan their state fair exhibits. Other activities were a Christmas greens workshop, helping at the hospital, and decorating for a church wedding. They held one flower show and had two garden pilgrimages with seven gardens open to

visitors. Mrs. Milo Schultz, a member of this club is State Junior Gardener Chairman.

**Vermillion Garden Club**—This club held their annual amateur flower show in cooperation with the American Iris Society on May 29th.

Here is a poem written by Mrs. Carl Beck, Start A Plant Garden Club, of Britton, South Dakota:

### THE GLAD

*Oh Gladiolus!  
So bright and gay,  
The Queen of flowers  
Is here to stay.*

*Their rainbow of colors  
They proudly display  
From early morn  
'Till the end of day.*

*In the garden  
They're easy to grow  
And as a bouquet  
They make a great show.*

The Madison Junior Garden Club, one of the most active in the state, will sponsor the annual sunflower contest for grade children this year. It will be the fourth year for this project. Free seeds are distributed to grade school pupils for the giant sunflowers and prizes are awarded for the largest heads in the fall. The sunflowers are grown so that the seeds may provide food for the birds.

## The PIONEER SEED HOUSE

Nursery-Greenhouses of the Northwest

FOUNDED at BISMARCK  
in DAKOTA TERRITORY  
in 1882

WRITE FOR CATALOGUE  
MAILED UPON REQUEST

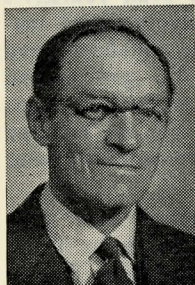
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BISMARCK, N. D.



## MY EXPERIENCE IN HORTICULTURE

by

R. L. WODARZ  
Wyndmere, N. D.



Wodarz

To test out a new fruit in No. Dakota, one must know on what kind of a root it is grafted. Haralson on a tender root would not be hardy in this state. So in order to give the tree a real test I send for scion wood to some of the fruit breeding stations. This I put on a hardy known root, or do top-grafting on a hardy tree. In a few short sentences I shall describe the experiences I had with some of the apple varieties.

*Crimson Beauty*: This is a Canadian variety and it is, I think, the earliest apple to ripen in this region. It is nice and red, fair size, somewhat tart and seems quite hardy.

*Lowland Raspberry*: I always wondered why this precious fruit has not been grown more. It is very early in maturing; some years some of the fruits would be ready as early as August first. It is a choice quality apple and it is pinkish red. The reason that it has not been planted more may be that it is rather slow in starting to bear. As a mature tree it has done very well with me.

*Melba*: Every home orchard should have a place for this lovely fruit. It has an attractive pinkish color and the tree seems hardy and very fruitful. If kept retarded in its growth one may not have any trouble with fireblight. This is one of the sort that starts fruiting early.

*Erickson*: If one likes to grow very large apples, this is one of them. On account of its size the fruit is apt to drop. This being grown for home use it won't make so much difference and this is a hardy fast growing tree.

*Early McIntosh*: This is another worthwhile apple of the McIntosh variety, and it seems quite hardy. Very prolific, in fact the fruit should be thinned severely as its sets fruit heavily

and in clusters. If grown the proper way it will be enjoyed very much and the fruit is a polished red.

*Beacon*: This is a nice trim red apple that you will enjoy very much. The fruit will keep for some 3 or 4 weeks. It looks to me that it will be better to have this variety top grafted. Maybe we could have it bear a little sooner. Much of the fruit drops as soon as ripe but this can be nicely remedied, I understand, by using a harvest spray shortly before the fruit is ripe. This is a valuable market sort.

*Milton*: This we would not want to grow from the ground up, unless it be in bush form. The fruit is of excellent quality, fine to behold and exceedingly pleasant to taste. I have three trees topgrafted to this variety and they bear well every other year; unless the weather is very warm during the ripening season the fruit will keep for a month or two.

*Wealthy*: There is not much for me to say about this splendid fruit. But by all means we want to have it grow on topgrafts, for the reason that the trunk and large limbs are vulnerable to sunscald.

*Kendall*: This New York apple is hardy enough to be grown from the ground up. The fruit is red, large, trim, a beautiful thing and when properly ripened, is very good. It is not as prolific as Milton or Melba, but it is worth while to try in this state. Its keeping quality may be a month or more, depending on the temperature at the time the fruit is ripening.

*Red Sauce*: As the name implies, this is a culinary fruit. When dead ripe the flesh of this very red apple changes to a reddish color, and the tree is very productive. It seems harder than Wealthy, as grown in this vicinity. I have yet to find an apple of this variety being molested by the pesky fruit fly.

*Medina and Orleans*: These two are Delicious crosses and have the shape of a real Delicious with the five points. The only way I fruited them was on topgrafts. I realize these two need a long season to ripen properly, something like 140 days. What I want to bring out is the difference in the taste between the two. Orleans tasted somewhat insipid while Medina, as grown here, has a red Delicious flavor, grows larger than its sister Orleans, but does

not color near as well as the latter. Medina is very well worth trying, only as topgrafts, of course. What a real test winter would do, I don't want to predict, however, my topgrafts of this variety have fruited and are still doing well.

## BOOK REVIEWS

by

MRS. R. G. FERRIS

PLANT BREEDING FOR EVERYONE by John Y. Beaty. Published by Chas. T. Branford Company, 551 Bolliston St., Boston 16, Massachusetts. Price \$2.75.

This practical manual, written by a former associate of Luther Burbank, tells you how to find and develop new plant varieties. *How to Patent a New Variety* is an important chapter in the book. Federal laws are quoted, a patent attorney offers advice about the process of obtaining plant patents, an application form with information about government fees, attorney services and cost of making drawings or paintings, and conditions governing the granting of a patent are explained in full detail. The Patent Office emphasizes that patents are not issued on seeds, or vegetables, or fruits, or on any plant that grows from a seed or tuber-propagated plants. This eliminates the potato and the Jerusalem artichoke from being patentable, but covers bulbs, corms stolons and rhizomes. A majority of the plant patents seem to be for roses. If you experiment with plant breeding as a hobby or as a serious vocation this book makes the subject clear and fascinating. It offers sensible advice from nurserymen and growers, was checked by experts for accuracy, and fills a real need for a book on this subject. The author, John Y. Beaty says, "the discovery and introduction of a new variety of plant is one of life's greatest opportunities."

## TODAY'S CHUCKLE

Did you ever notice that the people with the narrowest minds always seem to have the widest mouths.

The human race: A man with a woman chasing him.

—ARGUS-LEADER



## PROGRAMS

by

ALICE H. PLATT  
Langford, S. D.

I have a letter about the Horticultural Program for 1954 in which you may well be interested. It is proposed by Paul F. Frese, chairman of Horticulture, National Council of State Garden Clubs, Inc., and deals with landscaping with annuals. Since many Garden Club members have studied color harmony and design as these apply both to flower arrangements and garden planning, we now have an opportunity to apply this skill to this new horticultural program for 1954, as outlined at the National Convention at Myrtle Beach, South Carolina, this year. Annuals have greater diversity in color, form and height than any other plants, and may be combined with each other, as well as with perennials, bulbs, shrubs, evergreens, and in association with garden structures and other elements of design, such as paths, terraces, lattice and the like.

I will list some of the annuals recommended for landscape use:

*Ageratum* Blue Cap for edging or beds, in sun or half shade.

*Alyssum* Royal Carpet—Unsurpassed for edging. Dwarf. Violet-blue. A companion variety is white Carpet of Snow.

*Aster* bouquet Powderpuffs. Double, quill-petaled, 3 inch flowers.

*Calendula* Pacific Beauty—Heat resistant. Large double flowers. In four separate colors (gold, apricot, cream, lemon) and mixture.

*Celosia* Golden Fleece—Giant plume type. 2 to 3 feet high. Pure gold.

*Cleome* Pink Queen—A stately tall plant to 4 foot high. Continuous blooming all season. Variety Helen Campbell is white.

*Cosmos* Radiance—5 to 6 foot tall, deep rose with crimson center band.

*Dahlias* Unwin's Hybrid—Extremely colorful, easily grown from seed the first season. Low bushy plants need no staking. Colors warm or pale mixed. 3 inch flowers, semidouble.

*Morning Glory* Heavenly Blue—Clarke's early flowering variety.

*Nasturtium* Cherry Rose—Dwarf giant double type. Plants 1 to 1½

feet high. Not trailing. Flowers cover plant. Fragrant.

*Nicotiana* Sensation Hybrid—Compact, sturdy plants. Wide color range, including wine and chartreuse. Good in part shade.

*Petunia* Comanche—An F1 Hybrid, dwarf, single. Rich scarlet.

*Petunia* Pink Sensation—F1 hybrid, single, 24 inches tall. Light rose pink.

*Petunia* Crusader—F1 hybrid grandiflora. Pure white striped deep rose pink. Dwarf plants.

*Phlox* Globe Mixed—Compact dwarf, ball shaped plants.

*Salvia* St. John's Fire—Early flowering. Scarlet. Blooms to frost.

*Snapdragon* Tetra—Pink shades suggested. Vigorous plants. Large flower.

*Verbena* Floradale Beauty—Color rose pink to deep rose red. Alternate choice—Sparkle, scarlet.

*Zinnia* Blaze—1954 all American winner. 5 inches, double, quilled. Fiery orange scarlet. Plant to 3 feet.

*Zinnia* Peppermint Stick—Various striped. Medium size.

### *How the Program Works*

Individual club members may select one or more of the recommended varieties for landscape use during this year. Group annuals in such a way as to achieve color harmony, simplicity, proper scale and balance and a center of interest.

When the selected annuals are at their best, color pictures (35mm transparencies suitable for projection) should be made. Picture only varieties under test, and make several pictures at different angles and even different days. Call upon local camera enthusiasts for help if you need it.

If you wish to enter slides, after local exhibition, let me know, and I will tell you where to send them for state competition. Best in state will go on to national. If this program proves successful it may be continued for a second year.

I have already received requests about garden design for one of the major topics next year. It ties in with horticulture and landscaping, and can prove most interesting. I wonder how many of you have consulted the list of material available from the Library of The State Horticulture Society,

which may be obtained from Mr. Simmons at Sioux Falls. This list is contained in the Forty-Ninth Annual Report of the South Dakota Horticultural Society. I believe each club president received one of these. I was amazed at the length and scope of this list and urge you to avail yourselves of it. Then too, I have a list of material which may be obtained from National Council. All garden and many other magazines have excellent material and some of you are building up files of helpful material of your own.

In this beautiful season now upon us let us not forget to study nature in the fields, gardens, and forests, God's own text books, and to be on the lookout for some new lessons always. Nature is our best companion for every mood, in joy or in sorrow, and we can find relaxation in a garden, or a forest, by a lake or stream as nowhere else. May this summer be pleasant and profitable for us all.

### RED BLANCHARD

The police are picking up all the stray dogs in our neighborhood. I'm trying to find out what kind of dog we have. I thought it was a bloodhound until I cut my finger one day and he fainted. He's real smart. In less than two weeks he taught me to shake hands with him. He brings me the paper every night. Newsboy and all. He's a big dog. He was small until I told my little boy to take the dog out and give it some air, so he took him to the filling station. I think I know what's happening to the stray dogs. I saw a fur coat in a store window and the sign said, Genuine Fox. Underneath it said, Not Silver Fox, Fox Terrier. Whatever lady buys that coat is really going to be putting on the dog.—PRAIRIE FARMER.

A local credit manager got quite a boot out of this letter: "Dear Sir: I got your letter; be patient, I haint forgot you. Please wait. When I have the money, I pay you. If this was judgment day, and you was no more prepared to meet your maker than I am to meet your bill, you sure would go to hell. Trusting you will do this, I remain, yours truly." (For obvious reasons the name of the sender is not disclosed).

DAKOTA HORTICULTURE



## CHEMICAL WEED KILLERS IN THE HOME GARDEN

by

LLOYD C. AYRES  
Extension Horticulturist



Ayres

There is a great deal of talk these days about the new weed killers or herbicides that end the tedious gardening job. Of course, right there the meaning is misconstrued, because gardening is really a change from that other tedious job that is causing the ulcers.

Some weed killers are for use as pre-emergency sprays, while others are for use when the weeds are growing rapidly. The 2,4-D sprays (many under trade names) which are prepared especially for home use, can effectively control broadleaved weeds such as dandelions, and common plantain, which are growing rapidly when treated. However, like many other weed killers, you must stay away from flower borders, low trees and shrubs, roses and broadleaf vines.

Craig herbicide-1, a relative of 2,4-D is a pre-emergent spray, which has been used on at least 50 different kinds of plants. It kills only germinating weed seeds and will not kill growing weeds.

It is reported to be safe to use around trees both deciduous and evergreen, shrubs, roses and perennial flowers. It can also be used on asparagus, corn, strawberries and raspberries.

Experimentally, it has been used to

kill weeds between the rows of established vegetable crops such as beans, lettuce, radishes, cabbages, broccoli, brussels sprouts, onions, peppers and eggplants.

The directions for the use of this chemical must be followed completely, as there are still vegetable crops that may be killed by the spray drift. This point is important to the grower with a small home garden containing a large number of varieties, under intensive culture.

For example, when used on strawberries, it is used to kill weed seeds beginning to germinate. Growing weeds must be destroyed before the spray is applied. You need to spray before the first blossoms appear. Don't spray when the plants are in bloom. The spray does not damage the plants, but it will cause small, hard, knotty fruit if sprayed during the blooming season or while the fruits are on. The strawberry bed can be sprayed again just after the picking season.

Weed killers when used properly and in combination with old stand-by practices are a real help in gardening. In general, for small home gardens, the use of pre-emergence weed sprays are recommended.

When using chemical weed killers, be sure to read all the directions and follow all precautions given for its use.

One method to cut down the weeds between the rows of garden vegetables is to mulch. What can we use for a mulch? Almost every type of material has been used. Paper, stones, concrete slabs have been used along with straw, ground corn cobs, sawdust, wood chips, grass clippings and others. However, from experimental results it has been found that the best

mulching materials are those, that allow free circulation of air through the top six or eight inches of soil.

Mulches of fresh organic material, such as manure, straw, peat moss, or lawn clippings, not only aid in weed control but improve the structure of the soil by preventing surface compaction, conserving moisture and preventing erosion.

So for the most part, use the hoe and a mulch and you will discover an easier and more profitable method of caring for the vegetable crops in your garden.

The best time to prune evergreen trees is in late June or July. This is the period of soft spring growth. Evergreens should never be pruned in freezing weather as more harm than good is likely to be done. All varieties can be pruned. The method of pruning depends on the final shape you desire. Any cuts over one fourth inch in diameter should be painted with an asphalt type paint.

Evergreen trees and shrubs are especially susceptible to many diseases and insects and open wounds are merely an invitation for these pests to appear. Make clean cuts and don't thin out too much as this gives a ragged appearance. Most evergreens grow rather thickly and this normal growth habit should not be disturbed too much.—PRAIRIE FARMER.

### TO THE GRANDSON

Little fellow in your cot,

Dimpled cheek and eyes o' blue,  
All life's evil is forgot

When I'm looking down at you.

—E. GUEST

**HOME OF** *Seeds and Trees That Grow  
and Satisfy*

**Gurney Seed and Nursery Co.**

**YANKTON, SOUTH DAKOTA**



## YOUR YARD AND GARDEN

by

LEONARD YAGER

Extension Horticulturist  
Montana Extension Service



Yager

### Carrots

Carrots are one of the most important garden vegetable sources of vitamin A. They are a relatively easy vegetable to grow in the average home garden and may be used either fresh or cooked.

They may also be frozen or canned. Most frequently carrots are stored.

About the greatest difficulty one has in growing carrots is obtaining a good stand of plants from seeding. First of all, it is important to secure fresh seed as carrot seed does not retain its viability over a long period of time like some other garden vegetables. Secondly, it is very important to sow the seed in a well-worked seed bed.

The seed bed needs ample moisture in order to ensure good germination of the carrot seed. Since carrot seeds often take about two weeks to germinate it is helpful to sow a little radish seed with the carrot seed, and the quick germinating radishes will help to mark the row until the carrot plants appear. This will aid in weeding and cultivation.

Nantes, Imperator and Chantenay are all popular standard varieties of carrots. The Nantes is favored by many because of the very tiny core it produces. It is frequently a prize winner on the show bench because of its small core and desirable color and type. Tendersweet, Sweetheart and Goldin-hart are new varieties that are gaining rapidly in popularity. They are much superior in quality to many of the older varieties commonly found in the seed packet trade.

Thinning is important if one expects to produce the best quality, and well-shaped roots. It is always wise to sow carrot seed a little heavier in order to allow for the possibility of poor germination. Once the first pair of true leaves begin to form, the plants should

be thinned so that they are about two inches apart. Or, the thinning can be done in two stages. The first thinning can be about one inch apart, and then the second thinning is accomplished by removing every other plant.

The young tender carrots that are thinned out can be used on the table as small bunching carrots. It is helpful to sow some carrot seed at about two week intervals rather than make one main sowing in early spring. Succession sowing allows for the production of young tender roots through the season. Make the sowing for storage use about mid-June and this will ensure the production of young, tender roots for winter storage. If the early sown carrots are allowed to grow the entire season, they may become coarse and of poor quality.

The Nantes, Tendersweet, Sweetheart and Goldin-hart are all very excellent carrot varieties for freezing. Carrots are excellent frozen with peas, beans, and sweet corn.

### Weed Control in the Garden

In spite of advances in the use of selective weed killers, the hoe in the hands of an experienced gardener beats them all in the home garden. Because the home gardener deals with small quantities of a large number of different vegetables, it is impractical for him to have an assembly of the different weed killers used to control weeds in vegetables. The truck gardener and market gardener may find these substances much more useful since he is likely to specialize in a few kinds of vegetables and grow them in larger quantities.

Some experiments have shown that by using some of these weed killers, no cultivation is necessary at all. At least that is the information received in the areas where the experiments were carried out. Whether this applies generally has not been proven yet.

This doesn't mean that the home gardener should hang up his hoe and let it gather rust. But it does prove one important point—that the most important function of cultivation or hoeing in the garden is weed control! Because of this, fairly frequent and timely hoeings are much more important than using a hit and miss schedule.

The best rule to follow is to cultivate as soon after a rain or irrigation

as possible without causing the ground to pack. Hoe out the weeds just before, or just as, they are poking their ugly heads above the ground. Don't wait until they get even an inch high! Weeds rob the soil of much valuable moisture, so the quicker they're eliminated, the better.

Cultivation is a good moisture conservation measure. It destroys weeds before they begin sapping water out of the soil. But cultivation also leaves a dust mulch on top of the soil. Such a mulch aids in preventing too rapid evaporation of moisture from the soil, and the mulch puts the soil in much better condition to take up moisture when the next rainfall or irrigation occurs.

Some gardeners have the idea that deep hoeing or cultivation is desirable. This is not true, since the root systems of many of our vegetable and small fruit plants are very shallow. Deep cultivation destroys many fine near-surface feeding roots of these plants, reduces their vigor, and lowers their ability to produce maximum yields. Too deep a cultivation might also dry out the soil excessively. So the next time you cultivate, remember that a shallow stirring of the soil surface to prevent crusting and baking of the soil, is all that is necessary.

Follow a conscientious timetable of frequent light cultivation in the garden and you will find this chore a pleasant one. If you let the weeds get ahead of you, the job of weed control becomes an endless and discouraging task.

### BUILD PLANT TO REMOVE FERTILIZER FROM SEA WATER

A fertilizer plant is being built in Holland to make fertilizer from sea water. The plant is sponsored jointly by the Dutch and Norwegian governments. Eventually it is hoped to build several plants both in the Netherlands and Norway.

The Norduco process, as it is called, extracts potassium nitrate from sea water. The product should be superior to ordinary potash which is made up of potassium chloride or potassium sulfate. The new product contains both potassium and nitrogen.

—PRAIRIE FARMER.

DAKOTA HORTICULTURE



## GARDEN GLEANINGS

by

MRS. R. G. FERRIS

The Madison Garden Club distributed 5,000 giant sunflower seeds to all children in the first four grades of the 5 elementary schools. This is the third year for this project, the purpose of which is winter feeding of birds. Over 300 packages of tested flower seeds were given to the fifth grade children, who presented permits from parents for junior gardening. Two visits will be made to each garden by adult committee club members who will score the project. Those competing successfully will be awarded national certificates and the best gardeners will be presented prizes at a Junior Open House to be held in the fall. Several perennials, shrubs, seeds and bulbs were taken to the Lake View Rest Home. This is the second year for this type of therapy which seems to prove helpful to some of the 26 elderly persons living there.—(Mary C. Berther, president.)

The Lyons Garden Club held their annual Tulip Show in May. Many beautiful tulips and spring flowers were on display. The sextett from the school furnished music and the 4-H girls gave a style review.—(Mrs. L. N. Brakke, president.)

The Rural Garden Circle of Crooks had a program on, "How to Keep Your Roses Out of Trouble This Summer." The committee reported that a number of new perennials had been purchased for the West Nidaros Church flower beds. Plans were made for a "Spring Tea" to be held at Crooks.—(Inga Tidemann, reporter.)

The Community Garden Club of Miller had as roll call, "What I'd do with the 25th hour of my day," and most of them said they would spend it in their garden. The program was on lily pools and rock gardens. The speaker brought a miniature rock garden which was very interesting.—(M. Campbell, reporter.)

The Rapid City Garden Club has a pot luck supper before each monthly meeting. A question box, where everyone writes any question they want answered, is part of their program. Plans are under way for a spring flower show in June featuring iris and peonies. They are also sponsoring a "Model Mile" located on Jackson Boulevard which will be entered in a contest. Mr. Cline from Hill City, who was an Iris hybridizer for Sass Brothers in Omaha, Nebraska, put on a program of hybridizing, and culture of iris, peonies and hemerocallis. Films of the Sass Gardens were shown. It was noted to landscape the front lawn of the new Bennett Memorial Hospital which is being built at Rapid City. They voted \$100 to purchase the shrubs and met at the hospital on Arbor day to do the planting. Sixteen members of the club were there and planted 96 roses, 4 Hopa crab trees and about 70 other shrubs.—(Flora Jeffries, secretary.)

The Sioux Falls Garden Club will have their Annual Peony and Spring Flower Show at the Y. W. C. A. for one day only, June 19, hours 4 p.m. to closing. They hope to see some of the neighboring club members and friends. At their last meeting the men folk put in the flower plantings at the Y and the ladies served pot luck supper.—(Mrs. Olaf Gulbrandson, secretary.)

Southeastern Garden Club members gathered at Hurley, May 11, for a luncheon and flower show. Places were set for 90 representatives of 12 clubs. Arrangements were point scored by accredited judges as part of the program. The work of the organization, duties of the officers, and the convention schedule was covered in brief talks by state officers and club members. I believe it was the first regional meeting of its kind in this part of the state and certainly one the Hurley Green Thumb Garden Club can be proud to sponsor.

The State Convention and election of new officers will take place before this magazine reaches its readers, so please note the name and address of your new corresponding secretary that will be published in the next issue of this magazine. I enjoyed the work of keeping in touch with all the federated garden clubs in the state. Thank you and good-bye.

## LETTER FROM FLORIDA

by

C. RICHARD HARTMANN  
Rt. 2, Box 429  
Dade City, Florida

The write-up titled "Manitoba Newsletter" by W. R. Leslie, in the April issue of *Dakota HORTICULTURE* on the valuable horticultural creations of Dr. Yeager, was very interesting. In another publication I also read a detailed account of Dr. Yeager's efforts to create a blight-proof tomato.

The most blight-proof tomato from Mexico with which Dr. Yeager is working is no doubt the same as the one I have had in my gardens for years, and of which I wrote to *Dakota HORTICULTURE* a year ago. This tomato grows wild in Texas in the woods of the Gulf Coast, where it is protected from cold, because in Texas part of the extensive flora of Mexico overlaps the plants of the more northern sections.

This wild tomato in Texas may be identical with the one Dr. Yeager procured from Mexico. It comes up everywhere in our garden here voluntarily; is the size of a cherry, but superior in many respects to the cherry tomato offered by northern seedsmen; the fruit being a little larger, perfectly round and smooth, without any indentations; of a fine flavor, really better than the regular large varieties if eaten fresh, though when cooked it is more sour than the latter. Here it is the only tomato that will with-stand our hot summers. It is the only tomato we have when heat and blight have destroyed regular large ones. It has proven to be blight-proof though I have not sprayed it with any blight spores to test its immunity. The plant is somewhat viney or trailing but is not nearly so rank and uncouth as the northern cherry tomato. It is astoundingly prolific. The clusters have mostly six fruits and do not have the inconvenient habit of continuing to bloom from the tips and setting additional and smaller fruits.

During the last few years these tomatoes have hybridized in our garden with the common large kinds. The fruit of such offspring is naturally larger, about one and one-half inches in diameter, but the fruit and plants

(Continued on page 76)



## SECRETARY'S CORNER

by

W. A. SIMMONS



Simmons

June — The month of roses and brides, sweet girl graduates and daisies. The month of lush grasses, which inspired James Whitcomb Riley's phrase "Kneedeep in June." June offers the finest nature can pro-

duce. Penetrating the clear air and rich verdure on all sides are the song of birds. Golden sunshine, usually not too warm until late in the month, soft delicate breezes, longest days of the year, fragrant with the breath of blossoms and the mingled perfumes from garden and meadow—what a month it is!—*Yankton Press and Dakotan*.

In case any of our readers are afflicted with hen-fever, here is something from the reliable PRAIRIE FARMER that may be of interest to them and particularly, by such a person's gardening neighbors. "Purdue University has ordered hatching eggs from the new breed of chickens that cannot fly, which was announced by Dr. Clyne S. Shaffer at the University of Maryland. The chick which he has developed can be contained in a lot with an 18 inch fence as the new breed can barely get off the ground. He started to develop a breed of chickens without wing feathers to eliminate the expense of equipment necessary for rapid picking as with ordinary chickens. He began by cross-breeding first with New Hampshire Reds and then with Leghorn roosters and hens. From this he has developed both red and white feathered non-flying, meat chickens. Nests for the new breed must be built close to the floor or ramps provided for them to get up and down. Except for the lack of wing feathers the chicks are just the same as any others." This breed will not interfere with our boarding houses as there are just as many wings to serve. With the development of grass that seldom grows high enough to require mowing,

and of trees half the height of the ordinary street trees, so as not to apparently lessen the height of our ranch style houses, the scientists have been busy providing useful things for us.

A large bouquet of the official state flower—THE PASQUE—has been given to the governor's office by Norma Chapman of Mitchell. In receiving the gift the governor said, "It is not often that the Pasque makes an appearance in this office. Because of its shy and elusive nature, the Pasque is hard to find and it is regrettable that so many South Dakotans have never seen their state flower. I think that we South Dakotans should take an active interest in becoming acquainted with our state flower, tree, animal, bird, and above all, our state motto. In a few days Arbor Day will be upon us and I hope that on that day the people of the state will be very tree-conscious and that every person—and especially the children—will plant a tree. South Dakota should express state loyalty by showing an appreciation for our state flower—The Pasque; our state tree—the Black Hills Spruce; our state bird—the Pheasant; our state animal—the Coyote; and our state motto—"Under God the People Rule"; the state song, and the state flag.

"I feel that we South Dakotans should be more like the Texans and take a strong interest in our state; bragging about South Dakota is nothing to be ashamed of; we South Dakotans have a lot of things to brag about."

In sending in her dues for 1954, Mrs. G. J. Minder, of Wilmot says "I always read the magazine from cover to cover and always find something useful in it. We are having spring at last and things have been growing by leaps and bounds, except some plants that show winter injury. We had such a mild February that many plants that had no cover are showing loss of vigor. Everything that had covering is doing well. The hard freezes we had killed lots of fruit buds—the gooseberry bushes have no blossoms, but currants are full of blooms and a plum tree is one mass of lovely blooms. My raspberry canes are all dead, so will have no early fruit, but they are coming up from the roots and I have the Indian Summer variety so I may be lucky enough to have

some late berries though a frost usually catches them before many berries ripen. I have had this variety for several years and this is the first time they have winterkilled. Nearly everyone lost their strawberries. I lost many choice columbines, but the survivors are making a strong growth now. Also I lost my monardo's; I can't seem to keep them, are they hard to raise? I had trouble with oriental poppies but now have found a spot where they flourish and I'm looking forward to some blooms this year."

### LETTER FROM FLORIDA—

(Continued from page 75)

retain all the good qualities and characteristics of the original small kind, excepting a few that are more flat and tomato-shaped with some blight indentations when they are larger than usual.

In my above-mentioned write-up on this small tomato a year ago, I offered seeds or plants to the readers of Dakota HORTICULTURE free except for the postage, but I am sorry to say that no one took advantage of my offer; neither for other plants that I offered in the same article to garden and flower lovers.

We grow Dr. Yeager's Hampshire watermelon. It is doing fine with us in the Deep South and is of extra good quality. Our Easter lilies (all in the open ground) did not bloom for Easter this year but were a week behind. They should be reprimanded for such inconsideration and not be called "Easter Lilies" at least not for this year.

We are in the midst of the glory of gladiolus bloom (this is the beginning of May). Earlier plantings are past. Our pineapples are good-sized already. We are looking with anticipation to the maturity of them, which comes in July and August. These pineapples grown here in our hilly section are of such delicious sweetness and juiciness as they can never be bought in the stores. We grow everything organically, just like nature does—no commercial fertilizers are used on anything.

I continue to read with interest the many accounts of crops grown up your way, our former home; and of the weather conditions influencing the outcome of your favorites of the gardens,—but we feel we have made a "good trade" for our change to the South.

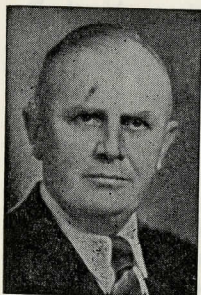
DAKOTA HORTICULTURE



## NINTH AND TENTH ROBERTSON AWARDS

by

H. R. WOODWARD, SR.



H. R. Woodward

Horticulturists in North and South Dakota are not interested in nor have they been interested in planting the bones of Sitting Bull. That sentence is too long. They have been interested in planting.

The broad acres and landscape of both of these great States have lent a favorable aspect to development along these lines. The soil has been favorable. The climate has been challenging to much development of planting and experimentation. As a result much has been done and much will be done in the future.

Since pioneer days, two great nurseries have contributed abundantly to the development of horticulture in the northwest. Gurney's at Yankton, South Dakota and Will's at Bismarck, North Dakota. Their work and contribution has been parallel. Both have contributed freely. Both have done extensive research. Both have endured the hardships of pioneer days, storms, blizzards, drouths, prairie fires, depressions, and the ravages of insects. Both stand as mighty oak trees on the banks of the Missouri, aged, sturdy and enduring. Branches have been broken off, pruned and trimmed and scarred, but new shoots have formed, new bark, and the roots have driven onward and downward. The old trunks still remain—solid to the core.

It is entirely fitting that tonight we honor two sons of these pioneer nurserymen who started these ventures. They are George W. Gurney and George F. Will. It is further fitting that we honor them together. We are glad to do this for North and South Dakota together. These states owe much to each other.

George Walter Gurney was born on November 29, 1883 (Thanksgiving Day) in Concord, Nebraska. He was the son of Charles Walter and Eliza Butler Gurney, and was the ninth of a family of eleven children.

Col. C. W. Gurney was a veteran of the Civil War. He was a nurseryman by experience, having owned and operated a nursery in Monticello, Iowa. He was also a writer of note, writing articles for the press on horticultural subjects, and a book "North-western Pomology" which was widely circulated throughout the Midwest. From Iowa the family moved to Concord, Nebraska, where Col. Gurney started another nursery. Here George was born and raised in the nursery business until he was thirteen years old.

In 1898 the Gurney family moved to Yankton, South Dakota, where another nursery, known as the Yankton Nursery, was started, just west of the city. George continued to work with his father, and the nursery business has been his life-work.

In 1906 George married Edith Grace Hobbs on August 22.

In 1907 Col. Gurney sold his nursery to the Gurney Seed & Nursery Company, which has occupied the building on Second and Capitol Streets since that time. George and his family which had a daughter, Edith by this time, moved to the nursery where they lived several years, until Edith started to school.

In 1915 a son, Sidney Walter, joined the family circle. He also was born into the nursery business and in 1933 when George started a nursery of his own called the Geo. Gurney Nursery, Sidney got both office and field experience in this business.

In 1939 Gurney Seed & Nursery Company bought the Geo. Gurney Nursery and George again found himself back at Gurney's as Executive Vice President of the Company and General Manager of the nursery department.

In 1940 he was elected president of Gurney Seed & Nursery Company and has continued in that office since. At the annual stockholder's meeting in November, 1953, he was re-elected to the office of president.

He has served many years as superintendent of the Horticultural Building at the South Dakota State Fair in Huron. He has been president of the Yankton City Park Board and served as president of the State Horticultural Society in 1941. Mr. Gurney we take a great deal of pride in presenting to you the Ninth Robertson Memorial Award in horticulture.

George Francis Will was born in Bismarck, Dakota Territory, on the 8th day of November, 1884. He is the son of Oscar H. and Elvira Bird Will, who were pioneer settlers of Burleigh County, Dakota Territory.

Oscar H. Will established the well-known Oscar H. Will Seed and Nursery Company at Bismarck in 1881.

Mr. Will we take a great deal of pride in presenting to you the 10th Robertson Memorial Award in horticulture.

May I say to you that you fellows are facing the prospects of a new day. The day is fast approaching when the Nile will no longer be considered the longest irrigated valley in the world. Changes are immediately upon us. Great commercial fertilizer plants are being erected in our midst. Our population is rapidly increasing. Our Indians are leaving their reservations. Great strides are being made in hybridization. Sugar production may sharply increase and there may be some canning factories established in our area. A new day in horticulture seems upon us. May the best wishes of our Horticultural Society go with you. We know you will meet the challenge.

### A PADEREWSKI STORY

In Paderewski's struggling days a certain well-known altruistic family of Chicago sponsored his concerts and he became a frequent guest in their home. Years later, when the great Polish pianist had come into world fame, he remembered the hospitality of his Chicago friends.

Learning that his sometime hostess, who was by that time 82 years of age, was spending the winter in Florida and at a place not far from where he was to give one of his concerts, he arrived at her home to her surprise shortly after the concert. When told that she had "listened in" by radio, Paderewski said that he had come to play the concert for her.

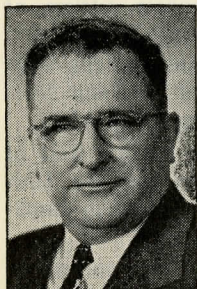
As the visit is described by her: "He went into the drawing room, opened the French windows upon the terrace and played the entire concert" for his friend of his early days—another instance of the chivalry of a musician who has evoked a symphony of praise more wonderful even than his skill has played.



## NEWSLANTS

by

H. A. GRAVES



Graves

As I sign your membership cards, I regret that I don't seem to have the time to write each of you at least a note. Many of you I have never seen to my knowledge but most of you belong to names that have been familiar for a good long time. Of course, if you would write in some of your horticultural observations or write in and ask a few questions, I would be duty bound to write you some sort of a letter. Let us hear from more of you. Newslants is my report to the members each month. You can have a part in this report by writing an occasional letter.

Speaking of membership cards reminds me, that we have been signing up members at a record rate. Part of this is due to the fine membership drive staged by President C. L. Jensen. Clarence was assisted materially by his daughter Laurel, whose husband, Herb Paul, is a student at NDAC. Laurel wrote the letters. Some of the new members set off a chain reaction by sending in the name of a friend with their membership dues. May the chain not be soon broken.

We hope that all folks who paid their dues by June 1 have long since received their two plants of N. D. Mum No. 523. We hope we didn't overlook anyone. We hope the plants grew. We also hope you like this selection. We plan to send you a short questionnaire next fall. There was a description of this mum in Newslants for April.

I have said for a long time that here in the North we have an ornamental in the flowering crabapples which is unexcelled anywhere in North America. The bell weather of this family of Rosyblossoms is of course the variety Hopa. Hopa, I believe, was released about 1918. It has stood the test of time, been hardy and resistant to fire-blight and an ornamental eyeful when weather has been favorable. However, Hopa when twenty or more years old,

spreads itself over quite a bit of yard and some home owners have yearned for a narrower tree. Hopa also fades to old rose ashes if exposed to high temperatures for a few days after reaching full bloom.

There have been some competitors named over the years but not until recently have any of them lasted more than the first few rounds. One of these was Red Silver. So named, in part, because of the pubescence on the under side of the leaves. Bechtet's Flowering Crab is a good thing where hardy—which it is not here. One tree did live for a few years in Fargo and bloom, but came a test winter and bingo! !! Bechtet's is not a Rosybloom, anyhow, belonging to *Malus loensis*. Bechtet's Flowering Crab has double flowers.

Recent years have brought on a rash of good hardy companions to Hopa. I wouldn't want to say how much better they are, but I would say that some of them are some better in some respects. There are three of these that I want to give special mention this spring.

*Almey*, a product of the Dominion Experimental Station at Morden, Manitoba, has as one of its distinctive features a five-pointed white star in the center of each flower. This is especially noticeable when the flowers are fresh. *Almey* apparently is here to stay. There are some other releases from the Canadian Stations but I am not familiar enough with them to speak of their points with any confidence.

*Cranberry* is a selection of R. L. Wodarz of Wyndmere. If I am not mistaken it is a seedling of the crab, Red Flesh. *Cranberry* is a worthwhile contribution to the Flowering Crabs. Its color is brighter than Hopa and it has worthwhile fruit. One of my most reliable reporters claims it yields better jelly than Dolgo—which is quite a claim!

*Red Spleandor*, selected by Melvin Bergeson of Fertile, Minnesota, is another variety that outshines Hopa for brightness. Another apparent point in *Red Spleandor's* favor is the time it hangs on to its bloom. We have a young tree in our back yard that had ropes of bloom this year—and the blooms outlasted a nearby Hopa by nearly a week.

If you have room for a small tree in your yard, I suggest you try a

flowering crabapple rather than Mountain Ash, Weeping Willow or some other heart breaker.

Ralph Smith, our wartime Society President, who was on the staff of the Dickinson Branch Station for many years has paid a visit to North Dakota. In company with Mrs. Smith, he drove all of the 2,000 odd miles from La Mesa, California, where they moved four years ago. Ralph, who took up painting when he was past 60 has been busy with brush and oil since moving to California. He had several paintings with him including landscapes, portraits and agricultural scenes depicting the Agricultural Revolution in North Dakota from breaking sod with oxen down to the recent past. The Smith's will attend the wedding of their daughter Ruth in Superior, Wisconsin, and then visit relatives in Missouri enroute home.

Joe Arensmeier has one of the cleanest and best kept orchards I have seen in North Dakota. Outstanding in his planting are six trees of Rosilda. Joe rates Rosilda as the best crabapple he has tested for sauce. He thinks it too bad it is no longer listed by our nurseries. I agree with him. We have had Rosilda's from three sources and made sauce from each lot. It has a quality all its own. Perhaps we can persuade some of our nurseries to propagate it again. Joe had done some top-grafting the past few years. He is handy with a knife. He put 41 grafts on one Siberian graft tree and 37 took, which is a good average in any league. He used cleft grafts and electricians tape.

Our cukes are planted, at last, with a nasturtium planted in every hill. I hope the cucumber beetles are going to be appropriately chagrined. Yorkstate Pickling for pickling cukes; and Surecrop Hybrid for slicers were the varieties planted, both of which have resistance to Cucumber Mosaic. If history repeats itself, they will need it!

It seldom fails that we don't have at least one report of some planting of tulips, glads—and yes, even peonies of several varieties all reverting to one color. This, of course, cannot happen. The last case was one where a mixture of glads of several colors and shades all wound up pink. In plants, we do have such things as sports as evidenced by the Red Warba Potato which is a sport of the White Warba. This sport

(Continued on page 79)



## FRUIT AND VEGETABLE NOTES

by  
F. X. WALLNER



Wallner

The weatherman cannot always be depended on in forecasting frost. The forecast of May he missed the temperature by 10 per cent twice. One day we set about 15,000 cabbage plants—

not frost proof but well hardened. There was to be no frost for that night—in fact it was to be warmer, but by morning it was down to 27. We had out 15,000 the week before, and the night of the hard freeze when it go down to 23, we tried to cover part of the field with the disks. The plants were safe from the freeze, but the harrowing and uncovering broke off many plants. Plants that were set with the heart just at the ground level suffered little, but those with 4 or 5 inches above ground and the flats of the more tender plants were killed.

Seeded cabbage, beets, carrots and radishes were damages, so that some had to be replanted. While I tell friends that June 1st is the same date for setting tender plants, we planted a thousand early type on May 15th and more the 17th and all plants took a light frost without harm. We even took a big chance and planted 44 rows May 20th and 21st, each row containing about 400 plants. That took the bulk of our best plants and there have been two nights close to frost since.

Our tomato field should be an interesting study as there are two new hybrids, one new early variety and a big planting of Greater Baltimore, the kind they grow at Vermillion and much of the nation to the south of us. Of course, we have a big planting of Chief, Firesteel, Wallner's Best Early Red, and Pink, and a bigger planting than ever before of Golden Jubilee. We have discarded three types of peppers and added two new varieties.

May 22nd—The boys brought in the first Icicle radishes today but I

wonder if the public will buy them, even though they are better than the red ones. The red color really sells radishes, as well as apples, but there are some that call for the Icicles.

There has not been enough moisture to start our seeded tomatoes and we may not have them this year.

June 1st—The two soaking rains the last days of May sure have made growing crops look much better than during the dry weather before the weatherman decided to favor us instead of dumping all his stock in the far south.

We are due to set out the largest and best lot of pepper plants, as soon as we can get in the field with the tractor and setting machine. This will finish the plant setting for this season; what little cabbage is set later will be by hand and only in vacant places. There may be some plums in spite of the low temperature on many nights during the blossoming time. White onion sets that were not harvested last fall, came through the winter, giving us a good stand and the crop will be harvested as soon as we finish pulling the crop we set out this spring. Very seldom do onions winter over to give us the nice crop we have this spring.

## THE SOIL SOLUTION

by  
CARL HUBOI  
*In The Earthworm*

Pure water does not exist in the soil. Even before it touches the ground, rain contains atmospheric gases and minute dust particles, some of which are soluble in the rain drops. The carbon-dioxide gas in solution is sufficient to cause slow erosion of rocks upon which the rain falls.

Upon contact with the soil, rain water immediately begins to take into solution the soluble products of mineral and organic decomposition resulting from microbial activity. The soil water is, therefore, a nutrient solution variable in strength from about .02 to .3 per cent.

Because of their extensive root systems which are greater than generally realized, plants are able to obtain from this weak solution all the elements needed for growth. At least 38 elements have been found in plant tissues. More than 20 have been found to be

essential. There may be more. Among the elements found are silver, lead, tin, copper, nickel, chromium, arsenic, mercury and zinc. The functions of some of these are not yet known but some, such as boron, molybdenum and copper, are believed to act as catalysts making possible or accelerating certain chemical reactions which take place in plant metabolism. Some of these elements may be present in the soil solution in such small amounts as to be undetectable by ordinary means, but because the plant transpires so much water during its period of growth it is able to concentrate them in its tissues in appreciable amounts. In addition to salts of the aforementioned minerals the soil solution contains organic compounds, the products of many kinds of soil organisms. Some of these are known to be absorbed by the roots. They may and probably do contribute to the growth, health and fertility of plant life.

Should the soil solution suddenly become too strong because of the addition of excessive amounts of such salts as nitrate of soda or ammonium sulphate, the result might prove harmful to plants and microbial life. The immediate effect of too high a concentration of these or other salts would be to create a change in the osmotic pressure, and water would be drawn from the plant roots and from microbial cells. The less resistant microbes—algae, protozoa, fungi, etc., would die and plants would wilt and possibly suffer permanent injury.

## NEWSLANTS—

(Continued from page 78)

occurred because of a genetic change, however, and not from association in the bin! Most of us have some farm experience in our background. If we stabled a white horse over-winter in the same barn with a dozen black horses, no one, I am sure, would expect the white horse to turn black because of some hocus-pocus of association! 'Tis the same with glads and tulips. In all fairness, I should add that there is an explanation in the case of glads and tulips. Some varieties are more rugged and more reproductive than others. As a consequence, their tribe is likely to increase while the weak sisters fade from the horticultural scene entirely.



Wayside.....



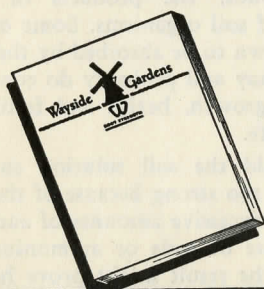
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### SIouxANN: A TOMATO HYBRID ADAPTED TO S. D.

by

R. L. FOSKETT

Since the advent of hybrid tomatoes, there has been an attempt throughout the country to obtain hybrids adapted to particular environmental conditions. It has been found generally that such hybrids have outyielded the standard varieties previously grown in a given area.

The increased yields obtained by growing a suitable hybrid in South Dakota are graphically shown in figure 1. Sioux, Firesteel, and Earliana are all commonly grown varieties that are well adapted to South Dakota conditions. However, Sioux, the highest yielding of the three varieties over a five year period, yielded only 80 per cent as well as the recently introduced hybrid Siouxann over the same period. Siouxann is an introduction of the Department of Horticulture of the South Dakota Agricultural Experiment Station. More information concerning its origin and characteristics can be found in another paper entitled

"Adapted Tomato Varieties for Northern Plains Area," soon to appear in this magazine.

The newness of Siouxann prevents a comparison with the standard varieties over a long period, but figure 2 shows consistently higher yields over a four year period. Each year at Brookings, the Experiment Station conducts a yield trial composed of numerous varieties and promising new hybrids. The line through the center of the chart represents the average yield of all varieties entered in the yield trial in the year shown. It can easily be seen that only Siouxann yielded higher than the average every year.

It is also evident that the variety Earliana showed relatively higher yields during the years that the others showed low relative yields. Since the yields shown on the chart are percentages of the average yield of all varieties in the trial, it must be kept in mind that an increase or decrease in yield of a given variety is so only in relation to the other varieties in the trial. Thus, on years when there is a serious disease problem and the later maturing varieties have their yields lowered serious-

ly because of vines dying during the summer or when there is a midsummer drought, early varieties such as Earliana appear relatively better. Actually, their yields may be lower also but since they mature a large crop of fruit before conditions are apt to become unfavorable, their relative standings are often the opposite of later varieties. Siouxann shows its superiority over the above mentioned varieties by being more uniformly high yielding.

"Papa, what is a low-brow?"

"A low-brow, my son, is a person who likes funny papers, snappy stories, girl shows, and the like and doesn't mind saying so."

"And what is a high-brow, papa?"

"A high-brow, my son, is a low-brow who won't admit it."

—THE EARTHWORM

Making a near miss is better than spending a lot of time looking around for a prettier one.—THE EARTHWORM

Quote of the month—"Necessity is oft times the murderer of convention."  
—ANON.