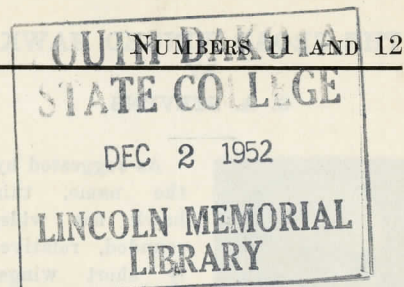


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VOLUME 25



# DAKOTA HORTICULTURE

NOVEMBER - DECEMBER, 1952



Our Blue Star Memorial highway marker, showing its beautiful location in our Black Hills. This was promoted by Mr. H. N. Dybvig, aided by your contributions. The wonderful site was selected by Mr. J. M. Atkinson, aided by Mr. H. R. Woodward.



# THE BROAD-WINGED HAWK

BY

O. A. STEVENS



O. A. Stevens

As suggested by the name, this hawk has wide, rounded, relatively short wings. It is only about two-thirds size of a red-tailed hawk which it resembles in general build. "About crow size, a rather clumsy looking bird with

a brown back." says Dr. Roberts. Two black bars on the tail can be seen from below. The wings are mostly white below but tipped with black.

My chief experience with this bird is from hearing its voice as I have been walking through rather thickly wooded areas. Their voice is rather plaintive, less loud and shrill than that of the red-tail. One year in the Turtle Mountains, Adrian Fox had found a young bird and was taking pictures of it. The hawk lay on its back, its feet in the air. Adrian warned me not to get too close but it seemed so harmless that I succeeded in sampling the sharpness of its claws.

Mr. Bent says "They are gentle, retiring, quiet birds of the deep forest." Dr. Roberts rated them as common throughout Minnesota. I suspect they can be found almost anywhere in the Dakotas where there is a good growth of forest. They are not likely to be seen elsewhere except during migration when they seem to gather in large numbers. On account of their unwary disposition they are often shot in large numbers.

Dr. Roberts records one instance when 6000 or 7000 flew over a game farm in Minnesota. Some came down into the trees and more than 100 were shot. In another instance such a flock settled in the trees around two towns where a crow shoot was in progress. Many hundreds were killed by the trigger-happy crow hunters. It is difficult to convince the average person that most hawks are beneficial.

This species nests all through eastern United States and southern Canada and is found in winter from the southern states to northern South America. The nests are placed at moderate

heights either in a main crotch or on branches close to the trunk. Mr. Bent says the nests are small, poorly built and are not used again the next year. Most commonly only two eggs are laid. They are about two inches long and are variously marked with brown spots.

An example of the tameness of this hawk was given by Audubon who took a bird from its nest and brought it to the ground where it posed for his painting. A later writer told of picking a bird off the nest when it did not fly as he approached.

F. L. Burns, who wrote an extensive paper on this species, says that birds usually sit on a convenient limb watching for their prey. Mice, rabbits, snakes, frogs, toads and insects are prominent in the diet. They are said to eat many of the larvae of large moths which are rarely eaten by other birds.

In addition to the northern form described above there are nonmigratory forms of the species found in the West Indies.

## WHO KNOWS?

By

Mary Louise Kinyon

Jethro Johnathan Carrington Chew  
Passed away at one hundred and two.  
Some folks think he could have lived longer

That is, if he had been much stronger.  
Strange to say, in all his life  
Despite the pleadings of his wife  
He'd get so mad he could have socked her

But Jethro never saw a doctor.  
Jethro died a normal death  
No doctors there attending  
So no one could rightly say  
Just what caused this ending.  
Some say age

Caused his death  
But I just think  
It was shortness of breath.

## FLYING SAUCERS

By

Mary Louis Kinyon

I saw a flying saucer,  
It was just my luck,  
I forgot to duck,  
It hit me right between the eyes.  
I saw such funny lights.  
Before I had recovered  
Another was in flight  
This one jarred my solar plex

I'll never be the same  
A saucer never misses  
When my wife takes careful aim.

November-December, 1952

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South Dakota • HORTICULTURE



## MANITOBA NEWS LETTER

By  
W. R. LESLIE



W. R. Leslie

The **GREAT PLAINS** Group of the American Society for Horticultural Science met in North Dakota this year. Sessions commenced August 11 at the Northern Great Plains Field Station, Mandan.

Tuesday saw the group at the North Dakota State College, Fargo, Wednesday was devoted to study of potato research at Fargo and Grand Forks.

The course taken to Mandan was by way of the enormous earth dam on the Missouri River at Garrison. The earth fill is a half mile wide at the base, is over two miles long and rises over 200 feet. The work began in 1946 and is expected to be completed six years hence. Modern power equipment moves earth and protective rocks for facing at quick tempo. The dam will form a very large lake as it imprisons spring runoff waters. Ultimately, 400,000 kilowatts of electricity are to be developed at the power plant.

The Mandan station is noted for its extensive shelterbelt trials and its fruit breeding. Four new apples and two varieties of plums have been introduced recently. Fruit was scarce due to the early May freeze being too severe for the newly set plums and apples.

One reason given here for growing white saskatoons was that they do not appeal to birds as do the red and purple colors. *Ulmus japonica*, *Maackia amurensis*, and *Shagspine caragana* were among the unusual things doing well. The natural hybrid,—the Northwest poplar, was found near Carrington. A forester reminded that the length of time to develop seeds on junipers is one year for virginiana, two for scopulorum, or the Rocky Mountain juniper, and three years for the communis, or Common juniper.

Dr. George F. Will, leading authority on Prairie Redmen, delighted the visitors in a large reconstructed Mandan earth council lodges when he spoke of the Mandan Indians and their agricul-

ture. The rounded lodges of cottonwood logs banked with earth were cool in summer and warm in winter. Beds were raised from the floor. Farm land was the property of the whole village. A man was allotted about 1½ acres for each woman in his family. Corn was the principal of several kinds of crops. There were 13 kinds of corn, of which the flour types were most important. Six kinds of beans, several kinds of pumpkins and squashes and four or five kinds of sunflowers were cultivated. Corn planting ended in early June. Beans and the vine crops were sown as soon as wild roses came into bloom. Storage was in bottle-shaped pits dug in the earth. Among the materials dried for winter use were squash, pumpkin, saskatoons, or Juneberries, and several other native fruits. Utensils were mostly clay pottery, some of which was artistically fashioned.

Apparently the flint types of corn were fed to their horses by the Mandan Indians. They had one kind of sweet corn. The sunflowers were usually parched, the hulls winnowed out and the oily meat rolled into balls about the size of baseballs. These they took on the warpath as concentrated sustaining food. Some squashes were stored green. A large white type was boiled with some squash leaves and maple syrup, made from boxelder sap, was added. The Mandan villages extended along the river for about 30 miles. Different to many other redmen tribes of the plains, the Mandans were seldom hungry. The downfall of these earliest prairie agriculturalists came as a gift of the whiteman,—the devastating disease, small-pox. It came in three waves about 1760, 1790, and 1838. At one time only 20 Mandans remained.

Dr. J. H. Schultz, Professor of Horticulture, explained his extensive research with potatoes, vegetable crops, fruits and ornamentals at Fargo. The heavy rich black clay near the Red River does not rate as very favorable orchard soil but an intensive program of complex experimentation is underway. Apples of three seasons of maturity are being grown on different root stocks and topworked on several hardy intermediate or trunk stocks.

Number 515, a scab resistant, russet-skinned potato is about to be named because of fine performance. A number of other new potatoes are commanding much favor and it looks as if the

long-time leader, Irish Cobbler, may shortly be supplanted. Growers require potatoes resistant to scab, late blight, and virus Y.

Stone fruits are undergoing heavy times in the Red River Valley. A wasting virus has killed thousands of cherry plums, wiped out wild chokecherry thickets, and is plaguing some other stone fruits. Scientific attack is trained on the pest but progress in overcoming the enemy appears tardy as yet.

The State College has a young arbor-etum furnished with trees and shrubs of distinction. That phase of horticulture on the prairies has lagged unduly. The systematic testing of imported woody ornamentals along with choicer native species, and enriched with the growing diverse offerings of North American plant breeders is sure to react to the satisfaction and happiness of all interested in building more beauty on the landscape and more charming home grounds.

Horticulturists attending the Great Plains meetings at State College, Fargo, North Dakota on August 12 obtained an intimate view of the progressive research underway at the institution. Much emphasis is being placed on potato and general vegetable improvement under the guidance of Dr. J. H. Schultz and his assistants.

The North Dakota potato breeding project is one of the largest presently underway in North America. Thousands of Fargo crossbred seedlings are grown, under close observation, at several stations. Resistance to virus diseases such as leaf roll, mosaic, and to the late blight as well as scab diseases is sought. A full time plant pathologist controls this phase of the work. An early maturing potato of high quality and desirable yielding ability, under heavy soil conditions such as in the Red River Valley, is also anticipated. Thus far, a seedling known as B515 appears most promising and may be named for distribution.

The tomato breeding project at Fargo has the development of an early, large fruited and high quality variety as its objective. The recently named Cavalier variety is the first tomato to be introduced by this new program. It is a very desirable sort in the same maturity range as Bounty.

Sprouting Broccoli breeding has as the main objective to produce single or central heading plants. Distinctive  
(Continued on page 84)



## NEWSLANTS

By

H. A. GRAVES



Graves

We have enjoyed some real good Northern Great Plains apples this season. Out of hand, McIntosh and Reta have been most tasty from the Wodarz orchard at Wyndmere. From Block's orchard at Ortonville, we

have enjoyed Cortland, another descendant from McIntosh. To the folks who like a spritely, crisp apple, these relatives of McIntosh may be too mushy. On the other hand one must be very sound of tooth to chomp into a Winesap or similar variety. Shivers scamper up and down my spine at the thought of eating one of those hard acid fruits. Not so everyone, however. I once heard an uncle of mine say he liked an apple so hard that it rang like a sleigh bell when one bit into it!

Block has tried with considerable success this year controlling the heavy set on Haralsons by the use of blossom thinning sprays. Later on they used another spray to delay fruit drop. The result was a good crop of large Haralson fruits almost completely dark red in color. A casual glance would not likely consider them Haralsons at all. Three of them have been on my desk for over a month now and they still are in good condition. Haralson still rates top apple with us for pie. Rosilda, a quantity of which we received from Franklin Page of Hamilton this year, makes the best apple sauce to our taste.

Speaking of apples, John Burroughs once had this to say, "The boy is indeed the true apple-eater, and is not to be questioned how he came by the fruit with which his pockets are filled. It belongs to him, and he may steal it if it cannot be had in any other way. His fruit eating has little reference to the state of his appetite. Whether he be full of meat or empty of meat he wants the apple just the same. The apple is indeed the fruit of youth. As we grow old we crave apples less. It is an ominous sign. When you are ashamed to be seen eating them on the

streets; when you can carry them in your pockets and your hand not constantly find its way to them; when your neighbor has apples and you have none, and you make no nocturnal visits to his orchard; when your lunch-basket is without them and you can pass a winter's night by the fireside with no thought of the fruit at your elbow, then be assured you are not longer a boy either in heart or years."

Your president and secretary journeyed to Brookings, South Dakota, in late September. While there the research work in Horticulture was explained to us by Dr. S. A. McCrory, head of the Department of Horticultural at South Dakota State College. A new greenhouse was impressive for its practical features and low cost per square foot. Fruit of seedlings of Anoka and McIntosh showed promise. Control of weeds in the lawn by choking out the weeds with vigorous grass growth showed evidence that this can be done.

A session of much mutual benefit was held with a good representation of the officers of the South Dakota Horticultural Society. We came away feeling that perhaps both Societies had a shot in the arm. Future cooperation was frankly discussed. Methods of making the magazine more attractive and also more self-supporting were given a long hard look. Enlisting more vigorous support from commercial organizations that should be concerned with the welfare of horticulture in the Dakotas was spread out on the drawing board for attention very soon.

The matter of membership and attendance of same at our annual meetings was hauled out of the closet.

There is no good reason why we don't have at least 2,000 members in the two Dakota Horticultural Societies. We shouldn't find it necessary to give away any radios, outboard motors or garden tractors to get them either. Our own membership could unite in a campaign to pick up a few members in their neighborhood. We have talked about this for years. Some crisp, clear morning we are going to launch such a membership drive. With a larger membership we would of course have a larger magazine circulation, could charge a higher advertising rate, and the magazine could be made of interest to more people.

We will try and have a summary of some of the outstanding varieties in the

1952 Demonstration Gardens next issue. By then you will be looking ahead to your garden for 1953.

## MANITOBA NEWS LETTER—

(Continued from page 83)

strains are in hand. It is of interest to note in comparison that market gardeners in the Winnipeg district demand varieties of sprouting broccoli which develop largely lateral or branch type heads.

In present day cabbage breeding the non-bursting head is a plant characteristic receiving much emphasis. At Fargo this condition is being developed in inbred strains of a taller than usual type of Early Vienna cabbage.

Squash studies are conducted at Fargo to determine the inheritance of the bush type of growth. Difficulty in transferring fruit quality from the vining kinds to the bush types has been noted. This also has been one of the difficulties in bush squash breeding at the Morden Station.

Many of the interesting details of the Fargo work were described during the plot tour by Dr. Schultz and his co-workers. In the near future results of wide application to vegetable growing generally can be expected from these efforts.

This rule in gardening never forget: To sow dry and set wet."—GARDEN PROVERB.

What a man needs in gardening is a cast-iron back, with a hinge in it."—Charles Dudley Warner.

Grass Seed. Millions of dollars go down the drain because this seed must be on top of the ground in order to germinate. It must have light and not be covered. Do not even attempt to rake it on.—L. F. McBrien in THE EARTHWORM.

For a new cotton, high in yarn strength, we are indebted to the Arizona Hopi Indians. The fiber is a cross between the Hopi, formerly grown by the tribes of the same name, and the well-known commercial variety, Acala. Its yarn strength is about one-third greater than rain-grown cotton and regular mix, giving it considerable promise for processing at all lower yarn counts.—CAPPER'S FARMER.

South Dakota • HORTICULTURE



## AWARDS FOR 1953

By  
MRS. G. M. JORGENSEN



Jorgensen

Dear Garden Club Members:

Here I am again with my old habit of encouraging you to join in our activities. Hitch your hoe to the highest star-point and climb up it to new garden glories through participation in all Federa-

tion projects! As your newly appointed Awards chairman, I am bringing you a complete list of awards you may win in 1953. Some of them, such as the flower show awards cover work done last summer, but in any case, get your data lined up in time to present.

I am asking each interested reader to clip this now, instead of sending out a mimeographed sheet to ONE individual in a club (who may tuck it under her garden magazines and forget all about it anyway) I feel that our DAKOTA HORTICULTURE is the best means of reaching each of you. So PLEASE CLIP.

### Awards for 1953

#### NATIONAL COUNCIL PURPLE RIBBON FOR FLOWER SHOWS:

All data pertaining to your show must be enclosed within covers and mailed to the Awards Chairman before January 10, 1953. Your application must be sent to President, Mrs. Monteith for her signature first.

#### SOUTH DAKOTA FEDERATION AWARDS—ADULT CLUBS—Ribbon Awards:

1. Flower Show Achievement—judged according to rules for a standard show.
2. Horticulture Achievement — any plant promotion project by a club.
3. Junior Achievement — outstanding promotion of gardening among youth, whether in a garden club or not.
4. Scrap Books—1st, 2nd and 3rd prizes. Rules will be printed next month. Save your material.
5. Special Achievement—any special project not listed above.
6. Year Books—1st, 2nd and 3rd prizes. See rules below.

#### FOR JUNIOR GARDEN CLUBS:

1. The Lona Crandall Plaque—7-year award. Watch for a reprint of the rules given last year.
2. Scrapbook—a record of Junior Club work.
3. Achievement for Juniors—any fine project accomplished by the Club.

#### FOR INDIVIDUAL JUNIOR GARDEN CLUB MEMBERS:

1. Nature Scrapbook—any subject.

Deadline for all except the National Council award is June 1, 1953.

Since it is late we will concentrate on the important year book contest first. Last year's score sheet which I helped evolve, raised a score of protests, so we'll try another system of judging for 1953. Though it may startle you at first there is nothing new added, just a revamping of the old requirements, with a revised point system. If you study it carefully you will need no help at all, but I shall be happy to answer any specific questions personally. If you have any real objections to the score, let us know and your criticism will be given due consideration.

#### Year Book Score Card

- I. Active, Well-organized Garden Club;.....25 points  
Size is unimportant. Any Club, large or small, can rate the full quota of points if they have:

1. Nine meetings per year related to gardening or Nature. They need not all be lectures, but must be meetings of the club.
2. 60% member participation in club work, local, state or national, as evidenced by your list of chairmen, officers, program leaders, etc.
3. One flower show, joint flower show with another group, or public display of some kind; or club exhibit in the State Flower Show yearly.
4. One other garden project, in addition to the show, yearly. This may be almost anything you choose—a big open meeting with authoritative speaker, a community workshop, civic planters, a conservation project, clean-up campaign (Don't be a Litter-bug!), garden center, bird sanctuary, group tour to an outstanding garden event, newspaper or radio releases, or any other garden re-

lated public service.

5. One delegate to the State convention.
- II. Format of Year Book..10 points  
Year books may be printed, mimeographed or hand written. No distinction will be made, but 10% will be deducted for advertising. The following points will be taken into consideration:
  1. Neatness—proper spacing, margins, legibility, and logical sequence of information.
  2. Size—any size may qualify, but 4½ x 6 inches is preferred.
  3. Covers—durable material; complete identification including name of club, town, state and year; good design, and secure fastening to open out flat.

3. Covers — durable material;
- III. Contents of Year Book..30 points  
This includes everything imprinted in it. No book will receive the total number of points allowed, because no book is so good that it can never be made better. Scoring will be made on the following:

1. Complete identification—name of club, town, state and year.
2. Club data—when organized and federated, and other affiliations which the club may have as a whole.
3. Officers, chairman, and membership lists with phone numbers or addresses.
4. State officers, National President, and Regional Director with addresses. Also indicate participation in state or nation by any of your own members. Give credit where credit is due.
5. Place of meetings, date, hour, hostess.
6. Club motto, aims, flower, bird, etc.
7. Supplementary material—may include references, coming events, magazines and books available, gardening hints, arrangement rules, charter members, by-laws, poems, illustrations, or what have you.
8. Complete program and leaders—and whether it is a study topic, demonstration, guest speaker, workshop, tour, ex-

(Continued on page 86)



## HOLIDAY AT DAUPHIN

By

Wm. R. PAGE

County Agent  
Grand Forks, N. Dak.



Page

August 29 and 30.

Dauphin, a neat, well built prairie town, of estimated 7,000 population, lies in the midst of a rich black soil area known as Gilbert Plains. Wheat and small grain production is abundant and the farmers welfare is reflected in comfortable homesteads and an air of prosperity in the town.

Dauphin is located an estimated 200 miles north of the border, it is beyond Brandon and to the north of Riding Mountain National Park. The Duck Mountains may also be seen to the north and west of the city.

I made the trip by car with Superintendent W. R. Leslie, of the Dominion Experiment Farm at Morden. Farm Foreman, Elvin Hosea, a native son of Morden, was also along; so this County Agent from North Dakota had excellent instructions on the history and scene as we drove across the Pembina Hills, plains and mountains. The first night, spent in Riding Mountain Park, at headquarters on Clear Lake, revealed the beauties which attract vacationers. Color shots were made to preserve parts of the scene for memory and for screen enjoyment by others.

We were in Dauphin Friday noon and busy judging exhibits after lunch in exhibit hall diner. The local hockey rink of about 100 feet square provided plenty of space for tables and racks for fruit, vegetables and flowers. The Manitoba Honey Producers displayed their extensive and varied exhibits of honey, wax and bees along the right wall of the building.

Judges of fruit included Leslie, Hos-

ea and William Cummings of Russel. The writer carried a courtesy judges ribbon which permitted him to question the official judges where his layman's w was slow to follow. And so "I found some tings out" like the German pioneer farmer who went to town.

Fruit varieties were numerous with Crab apples predominating. Top award for small apples went to a plot of Trail. Some of the larger apples included Haralson, Battleford, Mantet, Duchess, Melba, Heyer No. 12 and others. Although late for many plums, the choicest colored the tables but cherry-plum hybrids were not plentiful.

The vegetable and flower show provided a special class for displays which included vegetables, fruits and flowers. Several fine entries here were impressive both in junior and senior division. Another 'eye-catcher' was group displays by gardening clubs.

As usual in local shows, carrots and beets were very prominent and of about the same quality and kind we see at our local fall shows. Tomatoes were shown both ripe and green in equal entry numbers. More education is needed on the use of real early varieties for part of the crop.

Local interest in vegetable marrows was evident from an impressive display compared to other squash and pumpkin entries. One butter cup squash was seen. Cauliflower, and cabbages were of high quality; onion large but immature.

Flowers were all over the place with glads of the season naturally flooding the show. They were reported down from a year ago and of small size because of the drier autumn. Classes included: house plants in pots, cut flowers, flower arrangements and bouquets.

Cap-sheaf for the Friday evening program was W. R. Leslie's illustrated lecture on his visit to England and the continent.

Space will not permit relating the history of the Dauphin garden show but like all good community enterprise depend on a few enthusiastic leaders to give it berth and keep it going. Visits to farm homes and the passing scene show that good horticulture is practiced widely. But like at home, there is place and need for broad expansion in use of flower, fruit, vegetable, trees and shrub on the average prairie home.

## AWARDS FOR 1953—

(Continued from page 85)  
hibit or open meeting.

9. Projects for the year—flower show, junior work, civic work, conservation, garden therapy—or anything you sponsor.
  10. Evidence of past accomplishment in any field, and participation in state or national projects. This may be a page or a few lines, but give us some information to indicate that you have been actively working toward the aims and ideals of your club. There must be ample proof that you qualify as a standard club.
- IV. Utility of Program....35 points  
Scoring in this phase of the judging will be based on the value of the club to its own members and to the community, as evidenced by the material presented in its year book. Size and age of the club will be taken into consideration, so it is important that the data outlined be fully included. Quality of the work in relation to the club is of major importance.

### Judging School Held

If only more garden club members could be made to realize the wealth of pleasure and profit to be obtained by attendance at the good Flower Show Schools we have been having. The S. D. Federation, with chairman Mr. L. S. Bush, of Yankton, can now boast of having sponsored the series of five Flower Show School. Course I was held twice, making six courses in all.

The last course, Course V, was held in Sioux Falls, October 20, 21, 22 where 13 students were privileged to learn under the inspiring influence of Mrs. Edgar Irving, Omaha, immediate past president of the Nebraska Federation of Garden Clubs. Mrs. Irving has become a nationally known and loved figure in gardening circles for her forthright personality and broad knowledge. She is a unique combination of able horticulturist, an artist with color and flowers, and a teacher who can convey her knowledge simply and pleasingly. Mr. Wm. Snyder, "Bill," State College's young man with the big ability, was instructor in Landscape Design for the course, making the three days an especially interesting (Continued on page 93)



## PRESIDENT'S MESSAGE

By

MRS. LEO MONTEITH



Are you a Gardening Enthusiast? Have you put your flowering bulbs to bed for the winter? Nothing is more sad in the spring than to have a friend say, I wish I could grow tulips like yours. They could, if they would but try. Bulbs must be planted first to produce a beautiful flower. There are so many new varieties of winter flowering bulbs that we can even have bloom in February outdoors. That is a new splash of beauty and color for Dakota flower growers.

You don't grow better flowers by looking at display arrangements, do you? Displays do not grow, but they urge us to grow flowers. A judge can judge only what they see not what has grown. But, it is a tried and true suggestion, plant and grow named varieties, rather than a con-glamoration of flowers without a given name.

Does your City or County have an outstanding program or event pertaining to Gardening or Horticulture throughout the year? Is it an annual affair? It would be valuable to garden club members to have a calendar of events in our State. Therefore, would you please mail those dates to Mr. Simmons so they could be in our magazine? We would become better acquainted garden club members and better informed gardeners, for most shows and such events are very educational. Quite often big events are just outside our own door. It is nice

to sponsor a tour or a show, and it is even nicer to attend and be entertained by fellow gardeners.

Beverly Nichols, the English writer, once wrote advising compulsory gardening for statesmen in these words: "If we make it compulsory for all cabinet members to dig in the garden for an hour a day, we should be living in a happier world. For you can't work in a garden and want war. You just can't. A gardener is a creator and as such he knows the infinite pains of creation, the slowness of growth, the delicacy of the young shoot, the vital need for care and love and patience, lessons he learns from the trees and and as the years go by, he applies the flowers to human society and realizes that civilization is a plant of slow growth, a plant that may be forever destroyed by the frosts of war. That you cannot hack off the youngest branches of a tree and expect it to flourish. He knows that thinning out is an expert operation not to be performed by machine guns."

Our South Dakota Federation of Garden Clubs has been asked to sponsor a project in San Francisco in November. It is the first annual "International Flower Fiesta," November 22 to 29, featuring "Gardens of the World." We will be given a space 10' x 10' to present a Governor's Garden representing our State. Each garden will display the flag of the specific state and a plaque will bear the Governor's name and that of his state.

Also on display, we will have our State tree, a Black Hills Spruce, our State bird, a mounted Pheasant, and colored fall leaves and dried grasses.

Are you looking for a program for a club meeting? Here is a suggestion. For an interesting evening on Mums, write to Mr. E. C. Lehman, Fairbault, Minnesota. He has a beautiful set of one hundred 35 mm or 2-inch kodachrome slides of individual flowers of mums, garden and field scenes, window-box plantings and other pictures of Mums in full color. They are available without cost to Garden Clubs for use as programs. There is a short descriptive reading with the slides Showing time about one hour.

I regret that I do not have a complete list of State Chairman yet, but do hope to have in a forthcoming issue.

Whoever has a garden has three things that are needed; exercise for his muscles, food for his eating and a spirituality for his soul.—Clifford & John's Almamack.

If you want to know whether you're a welcome visitor to other people's gardens, be introspective for a minute. Answer this question honestly: When you go to see another man's blossoms, do you leave your own blossoms at home? Or test your character thus: Can you stand by your neighbor's borders five minutes without saying I—my—me—mine?"—Julian R. Meade.

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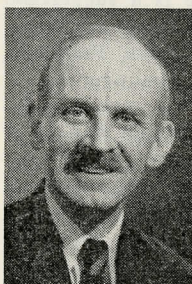
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## SEEDLING FRUITS AND THEIR PLACE

By  
PERCY H. WRIGHT



Wright

In the early days of experimenting with fruits in the prairie area of Canada (and presumably in adjacent States also), unscrupulous salesmen of nursery stock used to ask high prices for seedling fruit trees. The lack of familiarity of the population with fruit growing and the ignorance of grafting and the need for vegetative reproduction, enabled them to "get away with it." The inevitable result was that many persons who might have become fruit-growing enthusiasts became, instead, the type that would turn away all nursery-salesmen and leave unread every nursery catalogue. No wonder, either. Once bitten, twice shy.

And yet, there are times when the beginner can do no better than to plant out a well-selected batch of seedlings. This statement may sound as though I am advocating a return to the days of ignorance, and I realize that I shall have to guard my statements carefully in order to make clear the vital distinctions. Actually, broad, general statements are of little value no matter what our topic. One's instructions to learners are to be treasured in proportion as he is able to make fine distinctions and clarify them with illuminating examples.

It has been commonly stated that one seedling out of a thousand or so is all one can expect to find worth saving. This figure may reflect the truth when the seeds chosen are from inferior parents, or even when one inferior parent appears in the generation or two before. Donating genes to the next generation, whether it be human or animal or plant, is like dealing out a deck of cards. The laws of chance can't do impossibilities. If you have removed all the face cards before you begin to deal, the hand you give out, of course, will be one to provoke the exclamation "I pass." On the other hand, if you remove all cards of low value before dealing, the pro-

portion of face cards will be high even in the average hand, and the occasional one will be rich indeed.

Rhubarb is not exactly a fruit, but an instance of inheritance in rhubarb will reveal what I mean. Modern red rhubarbs are descended from the old-time variety Victoria, often called "Strawberry" rhubarb. It had a fair amount of pink at the base of the petioles or stalks. Naturally, when the plant breeders tried to get a superior seedling from it, they had to raise seedlings by the thousands in order to find a few that were of better quality and higher color. McDonald College, an agricultural college near Montreal, selected from Victoria seedlings the still-famous rhubarb MacDonald. The Central Experimental Farm at Ottawa produced from the same source its selection, Ruby. It is much richer red than MacDonald, and sets abundant seed. However, on account of the way the crowns quickly divide themselves and so make small stalks, and a certain lack of resistance to diseases, MacDonald has been the more popular of the two.

When seedlings of Ruby were raised (and a few from MacDonald, though it is nearly sterile), the proportion of rich red seedlings was greatly increased. The second generation of rhubarbs includes Canada Red, originated by George Chipman of Winnipeg, Valentine, originated by the Ontario Fruit-Breeding Station, and Early Sunrise, originated at Kentville, Nova Scotia. From Ruby came also my own selection "Moose Range," a variety which my wife insists is the best of all, and I agree that it is a good one. It was one of only twenty or so seedlings.

Since then, I have been raising seedlings from still later seedlings, and have found one so homozygous that practically every seedling from it is of high quality, only five percent or so being inferior in color to MacDonald. Even the most rigorous selector among gardeners would not discard more than fifty percent of the seedlings. What the parent of these high-quality seedling is must remain for the present my secret. Do not let that PhD. word "homozygous" puzzle you. It simply means what would happen if you removed all the cards below nine or so from a deck, and then doubled the number of the remainder.

Just a few days ago I was reading that strawberry growers are beginning

to think that they would like to be able to propagate their strawberry plants from seed instead of by runners, on account of the increasing severity of the virus problem. It seems to be a fact that seedlings are free of virus diseases for some time, (until chance re-infects them), however badly infected their parents may have been. Strawberry seedlings at present do not give one plant in fifty that the gardener would be satisfied with, but the mere proposal to raise commercial strawberry plants from seed indicates that the experts see no reason why parents that are sufficiently homozygous that they will throw a large proportion of high-quality seedlings cannot be found.

Strawberry seedlings and rhubarb seedlings can be evaluated partly at least in their second year, but fruit trees are a different proposition. They may be five to eight years before they fruit, and the grower may want to give them another five years before deciding to discard them. This amount of time means that the raising of seedling fruits is an expensive proposition, and one that we should not willingly wish upon an innocent would-be orchardist or home-grower of fruit. In the case of tree fruits, then, we must be doubly sure that the seed we choose has a if possible, at least three grandparents of high quality, and the fourth of fair quality.

I have raised numerous seedling fruits. I tried cherryplums, crabapples, apples, and tree plums. The cherryplum row, raised from seed of recent numbered descendants of Sapa, gave me one seedling that I valued greatly for its fruit, which was small, but the sweetest, earliest cherryplum that I had ever tasted. However, a few years later winter conditions hit all cherryplums, including even Opata, so hard that I decided to discard the whole row. We are too far north for cherryplums of the present breeding. I found the seedlings of this class of *Prunus* extremely variable, and most utterly worthless. No beginner should start raising seedlings of the cherryplums; they are not sufficiently promising. I say this despite the fact that I got one seedling that pleased me for every quality except hardness.

In crabapples, I got a number of excellent Rosybloom ornamental types, but nothing in large fruited sorts that

(Continued on page 91)



## GARDEN CLUB GLEANINGS

By

MRS. R. G. FERRIS

Corresponding Secretary

Rt. 3, Sioux Falls

This year the all State Flower Show of the Federated Garden Clubs was held in conjunction with the Horticulture exhibit at the State Fair at Huron. A full report of this, from the pen of Mrs. Francis Nelson will be found on another page.

Mrs. G. R. AcArthur of the Fair City Garden Club of Huron writes that the outstanding work of that club is their sponsoring of the Junior Club in charge of Mrs. Milo Shultz. This youths' club was arranged through the civic recreation program in Huron, and there were about 100 participants during the past year. After growing their products these juniors were able to display floral arrangements and animal novelties in a "zoo" exhibit at the State Fair.

Reports from Garden Clubs:

Watertown Garden Club, with Mrs. Ross Oviatt as general chairman, presented its annual flower show in the Auditorium, with a record number of 595 entries and attendance over 1500. A whole page of "Photo News" was given over to pictures of this show.

Dell Rapids Club held an interesting fall meeting with a lesson on "mum" culture. Probably the question uppermost in the minds of every gardener this fall is "why don't my mums bloom?" It is concluded that lack of sufficient water is the retarding factor. Most of the popular modern outdoor chrysanthemums have been bred for blooming during August and September, but during a prolonged drought such as we have had, loss of vitality oc-

curs and blooming processes were delayed. Zantha has proven one of the earliest, reliable bloomers, and since it is a bright, clean yellow, is a highly desirable chrysanthemum. White Tower is another hardy mum that blooms about a week later.

Miss Laura E. Sexauer writes: The Brookings Garden Club and the Good Earth Club of Brookings staged a "Chrysanthemum Show," Sept. 27. Although it was after the freeze we really had a beautiful show. Our back-ground was a garden scene,—large lawn umbrellas with tables and chairs,—flanked by hugh castor plants.

Flora Jeffries of the Rapid City Garden Club writes of a very interesting meeting in September. The Junior Garden Club members brought a display of vegetables which they had raised in their gardens and was sold at auction following the close of the meeting, netting the treasury \$34. Larry Henderson, a member of the Garden Gophers Junior Club demonstrated the use of Krillium in conditioning soil, showing how the soil treated with Krillium would absorb the water while the untreated soil let the water stand on top, thus allowing it to drain off the garden. This was a very interesting and instructive demonstration and very well given by this junior club member and should be of great value to anyone having soil problems.

Sioux Falls Garden Club had a Halloween party this week and Mr. W. A. Simmons writes: It began at 7:30 P.M. when an operating table was set up in the outer room of a garage and a number of experts set to work with might and main and sharp knives, converting innocent looking pumpkins into fearsome appearing Jack-O-Lanterns. After completion, they were judged by

all present and a vote taken as to the best artist. The first minutes of our club, the organization meeting back in Nov. 1935, was produced, which showed that the first president, Mr. Swartout, and the Sec.-Treas. as well as four other charter members were present and seated at a special table, as horrible examples of what age can do to one. During the program lists of questions were read, answers to which required much imagination as well as a smoothly working brain.

South Sioux Falls Garden Club voted to purchase and plant enough tulip bulbs for a nice size bed at the Crippled Childrens' Hospital in Sioux Falls.

### 1852 INSECTICIDE

Rose Insects.—If our lady readers, says the New England Farmer, are desirous of keeping their rose bushes free from the small green vermin that so frequently infest them, the following remedy will be found an effectual one: To three gallons of water add one peck of soot and one quart of unslacked lime. Stir it well—let it stand for twenty-four hours, and when the soot rises to the surface skim it off. Use a syringe for applying it. This is better than smoking with tobacco as it is not so likely to destroy the plants.—PRAIRIE FARMER.

Potato. A new potato variety, Kasota, from the Minnesota and Nebraska Experiment Stations, is proving more resistant to blight than many other varieties. It is a cross between Triumph and Selection 29-13. It has shown strong resistance to stem-end rot in Nebraska. Kasota has an extra high ascorbic acid, or vitamin C content.—CAPPER'S FARMER.

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## THE FABULOUS YAKIMA VALLEY

By

H. L. DRAKE

Secretary of the Kansas  
State Horticultural Society

The Yakima Valley is one of the horticultural paradises of the world. Its setting is dramatic and its production is spectacular even though the growers are not always sufficiently rewarded for their efforts.

The growing area is a wide green expanse nestled down between great bare hills that are almost young mountains. High up along these brown hills runs the magic of the irrigation flume. And all below it, the country is as green as though it had been given a bright coat of paint. The town of Yakima rather centers the area with the wide valley below given over mostly to the growing of soft fruit, such as peaches, sweet cherries, and pears, with still some good apple orchards in evidence. There are also wide areas of alfalfa, chiefly grown for seed, hops, and some pasturage for cattle.

The upper valley is more largely devoted to apple growing with miles of orchards extending both up the Yakima River and branching off up the Naches Valley.

The demand for irrigation water is so great that the normal flow of the rivers is not sufficient and there are great dams up in the mountains where reserve supplies of water are impounded. The Yakima growers are up and coming despite reports of unprofitable years and high operating costs. They are on their toes and going places. The most up-to-date growing practices are being used and new orchards are being planted. Many growers have acquired water rights from the canals and are putting in booster pumps and lifting water to favorable sites well above the old irrigation lines.

One of the first differences mid-western and eastern growers noted was the type of pruning practices by the Yakima growers. One gets the impression that all fruit grown in the valley is produced on stubs of limbs. All types of trees are heavily headed and sharply pruned.

### Heavy Production

The yields in the good orchards are staggering. Many orchards regularly pack out 1500 boxes per acre. We vis-

ited one orchard of this type chiefly of the red strain of Delicious where a crop of this size was regularly picked and all of it from trees that did not require anything longer than a 12-foot ladder. Their trees are more closely spaced than ours and headed back and held down for adequate orchard operation. In many orchards the prunings are not removed but left on the ground and incorporated with the soil.

### Fertilization and Soil Treatment

The orchards are heavily fertilized annually chiefly with nitrogen and fairly clean cultivation is practiced. Cultivation is held to a minimum in order not to disturb the irrigation system. Most orchards are using the rill system of irrigation although the sprinkler idea is gaining ground rapidly. Many kinds of machinery have been devised and being used to take care of their cultivation problems in these irrigated orchards.

### Insect and Disease Control

This was perhaps the most surprising thing we found in the valley. Growers are producing perfect crops of fruit with the maximum of two sprays a year in addition to a dormant. Parathion and DDT used in combination have practically wiped the insects out of the valley and of course with dry summers they have no scab problems. This is a remarkable record in view of the fact that when your secretary was last in Yakima in 1936 whole orchards were being abandoned because insect control could not be gained with the materials then available.

The widely used stationary spray rigs generally in use then have been largely superseded by speed and concentrate sprayers. But during our entire trip through the valley we did not see a single spray crew working nor did we find a single wormy or disease infected apple.

### Thinning

Thinning has always been a major operation in the Yakima valley. They cannot afford to grow small or inferior fruit. Hand thinning is now being supplemented by the chemical method chiefly Elgetol in the blossom although the later applications of hormone are still being used. However, hand thinning was going forward when we were there as most growers thought there were still too many apples for the fancy grades they had to grow. They actually space their apples down to

what looks to the rest of us like a thin crop. But they get enormous size and quality. One grower stated that if he had more than a fraction of a percent of C grade apples he would be deeply disappointed.

Peach thinning was also in full swing and they use the pole method largely. Higher than ours they are also generally. While their peach trees are generally stubbed off and the crews use long slender straight grained cedar poles and simply beat the peaches off the trees. There are far more peaches on the ground than on the trees when the thinning is completed. However, the men move fast, at \$1.00 an hour; one grower estimated his thinning cost 33-1-3 cents per tree giving each man a rate of three trees per hour. Many of these peaches go to the cannery and the cannery will not take a peach under 2½ inches. Therefore, the orders to the thinning crew are "get plenty of them off."

### High Power Production

We are thus bucking fruit production on a scale that most of us in the more eastern areas know little about. These intensive orchard practices plus abundant water and uninterrupted sunshine give the growers a chance for quality, color, and finish that is very hard to attain elsewhere. No Yakima orchard ever endured the blighting, watering, heat, and drought that many Kansas orchards already have endured with this summer only half gone. It was the verdict of most of the growers that it would be fun to grow fruit in the Yakima Valley even if one went broke doing it.

It is delightful to be able to wander about in a strange garden unaccompanied by any host or hostess, and so to be absolved for having to exhaust one's vocabulary of superlatives or make intelligent remarks about the growth of plants. One can criticize, even object, without offending anyone." — Lord Ponsonby.

I think that gardeners must be like parents. No parent wants to talk about anybody else's child. His own son's adenoids are far more charming to him than any other infant's achievements. And I would rather shake earwigs out of my own dahlias than pick the rarest orchids from the hottest of Sir Philip Season's houses."—Beverly Nichols.

South Dakota • HORTICULTURE



## STATE FLOWER SHOW

By  
MRS. FRANCIS NELSON

This year the all State Flower Show of the Federated Garden Clubs of the state was held in conjunction with the State Fair Horticulture exhibit. As this was something entirely new there was no precedent to follow but as usual good hard working Garden club members arrived and history was made. Mrs. Kindred brought several ladies from Miller and Mrs. Photakos and Mrs. Merrit from Huron; All helped with the show. Decorations carrying out the "Summer Sunset" theme in shades of yellow and orange were placed on the wall above the tables. The tables and immediate background were covered with sand color paper. Gurney's Nursery kindly loaned two junipers, which added a nice accent to the display. And, of course, reliable Mrs. Baughman arrived with displays of pictures and year books. These received much attention and caused many inquiries regarding Garden Clubs.

It can be truthfully said that the Federated show was an attractive addition to The State Fair Horticulture display and that it did create an interest being judged by the numbers of inquiries about how to start and how to join Garden Clubs. From the point of general participation much less must be said. The great distances, the time and the weather conditions all pose problems to be overcome in transporting material for exhibit. There were ten clubs represented. The arrangement section had some really outstanding entries. While some classes had no entries, others had very keen competition. The class that called for an arrangement done in silvery grays and white with an accent color representing "Moonlight on The Prairie" seemed to catch the fancy of the most exhibitors.

Mrs. D. S. Baughman of Madison received the floral container for having the best arrangement in the show; Mrs. John Bushfield was awarded a floral container for receiving the most blue ribbons, and Mrs. Francis Nelson won the container awarded for the best gladiolus in the show.

Jeanne Parsons, Betty Smith, Danielle Erickson and Craig Erickson all of Huron had some excellent entries in the Junior Division. Craig's collection of pressed leaves in a wood cov-

ered scrap book was an exceptionally fine piece of work.

No report would be complete that did not give William Snyder due credit for his able assistance and advice in all phases of the show from the time the schedules were printed until the last exhibit was released. That Federated Garden Club Sign he had designed was a beauty.

### SEEDLING FRUITS—

(Continued from page 88)

would challenge the present varieties. If I ever try raising a batch of crabapple seedlings again, Robin will be the mother parent, for Robin fruits on young trees, and I believe that it is important, if one is to retain his zest for experimental raising of seedlings, to have early fruiting among them.

In apples, I raised a hundred seedlings of Moscow Pear apple, from seed saved for me by the Dominion Experimental Station at Morden. Most of these were evidently fathered by other standard apples, for they showed winter killing the first winter or two, and so were quickly discarded. The remainder, about ten trees, should blossom next spring. I do not expect anything more than large crabs among them, for their hardiness leads me to suspect that only hardy crab pollen has entered into their composition.

In plums I have had the best luck of all. My seedlings came from seed saved for me by Dr. C. E. Patterson in the fall of 1938, from the University of Saskatchewan orchard, at a time when there were no seedling trees, or understocks grown up, in the orchard.

When some sixty trees or so fruited, I dug out about two-thirds at once. The remaining third, which are spaced fairly well in the row, well enough that I can leave them as they are, all give fruit of a quality that would prevent me from discarding any further. Of these, I have no less than three, Norsex (meaning North Selection), Sussex (meaning South Selection), and Earlsweet. The latter is a small one, but so sweet and good, with no bitterness either next to the pit or under the skin, that I prefer it to much larger plums of good quality. Budding of these three will begin this year. Other growers, of course, may decide that is not only that sixty seedlings gave no less than three that seemed to deserve naming, but also that some twenty de-

serve keeping in the orchard. This number was great enough to make my venture in growing trees from seed well worth while. There is another factor that deserves consideration. What a comfort it is to have trees that are on their own roots.

Seedling trees can be grown quite close together if moisture is naturally adequate, or if irrigation is available. My crabapple trees are grown in a double row, about a foot apart each way, and then plenty of space to the sides. My plum trees were grown in a single row about fifteen inches apart.

It is possible to discard many trees long before they come to a size to fruit, or to be expensive to pull out. A few will be discarded early for susceptibility to chlorosis, and perhaps half will be discarded for being weak growers, or of poor shape. In an area where fire blight is prevalent, the proportion discarded early for susceptibility to it, may be very high. If seed of tender parentage is chosen, the proportion discarded for lack of hardiness may also be very high. It cost me practically nothing, for instance, to discard ninety or so seedlings of Moscow Pear apple. The proportion that one expects to be able to discard soon will determine to a large extent the distance apart to plant the seedlings.

To have ones own spade in ones own hands eating into ones own earth is an occupation for a king.—Robert Lynd.

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## FRUIT AND VEGETABLE NOTES

By

F. X. WALLNER



Wallner

Some little seed balls, about the size of ground cherries, were brot to the Garden club meeting that no one could identify. They were picked at Newton Hills, in Lincoln County, our neighbor on the south. One of our farms, also

in Lincoln County, has several patches of this very obnoxious weed; it is so spiny and thorny it cannot be touched with bare hands. Minnehaha County weed supervisor thinks there is none in our county and ours is on the county line. He is keeping close watch that none gets across, but with the receding flood waters, in the spring, some of those balls of seed will find a new place to grow, and cause grief. Our big Pontiac potato is the largest I have seen or heard of, was 3 pounds at digging time and still two and three fourths, two weeks later. Our new Lasota's and Kennebec are a very fine crop. I have never boasted of an 1000 bushel per acre yield, as some one has said, or even 500 bushels, but this year we have the best crop we have ever grown and they say it is a 500 bushel crop. Most of the latter part of October has been spent in insulating the large new potato warehouse, for winter. Also in storage will be a nice crop of carrots and onions. Squash and cabbage will be cleaned up before Dec. 1. Last year our popcorn was a complete failure and never would pop, all winter. This year the Jap Rice is fit for popping in October and was all shelled, bagged and cleaned, the last of October. This brings to mind that back in 1912 I had a few shocks of Jap Rice popcorn, in the big barn and the Jolly Rice Company of Sioux City, bought all I had. They were just getting started at that time; now they are a well established popcorn firm. The charter members of the Sioux Falls Garden Club were given a special table at the Halloween party, at the J. F. Schultz' Home, at 808 S. Phillips Avenue. There are half a dozen of them, so old and tough that the grim reaper

has never managed to get his lunch hooks on them. The minutes of the first meeting after organization and election of officers, dated Nov. 5, 1935, was produced by the Secretary, and read. We still have the same Secretary, never having been able to get rid of him. There had been weekly meetings for nearly a year, but no organization effected. The ladies of the club had provided many fine pies for the party, patronising all home grown fruit for filling, wonderberry and pumpkin, with plenty of whipped cream for a rider. We are still looking for a better pumpkin than the pie pumpkin, or either of the field pumpkins for the Halloween customers. I am sure there must be a better shape, with medium size. Below I am passing along an article from the always interesting and reliable PRAIRIE FARMER.

"Male sterility will undoubtedly play an important role in the production of hybrid seed corn within the next few years.

"Dr. M. M. Rhodes discovered cystoplastic sterility in 1933. After going from Cornell to the University of Illinois, he found in 1942 a special gene that gave some promise of making male sterility a practical approach in producing hybrid corn.

### Work at Purdue

"Dr. A. M. Brunson, federal botanist stationed at Purdue, has worked continuously to perfect the use of male sterility in his corn breeding program. It is now successful and the Purdue Agricultural Alumni Association have 30 acres under production this year.

"Charles Bowman, manager of the foundation seed association says: "It costs hybrid seed corn producers between six and eight million dollars annually to detassel corn. On top of that the labor situation has become more and more difficult, multiplying the responsibilities of the growers."

"Detasseling corn, according to Bowman, may be eliminated in the next three years. But male sterility corn is not going to ease the burden of producing hybrid seed.

"The seed producer will have to assume more responsibility, watch his corn closer and handle the seed stock with the utmost care."

### Corn Varies With Location

"He explains some locations of the field may produce tassels that shed

pollen. That means growers will have to make daily inspections and rogue out any tassels appearing to shed pollen.

The introduction of male sterility in corn, which eliminates detasseling, does not mean cheaper seed stocks. It does mean purer strains of corn which should mean higher yields.

"Bowman says there probably will not be any immediate advantage to the commercial corn grower.

Plant breeders are working on other new developments—such as pollen restorers that will further aid both seed producer and farmers in growing corn. The pollen restorer is a gene that plant breeders already know how to handle. If reintroduced into sterile corn the plant again has the ability to produce pollen.

"The University of Illinois has had some plots under trial that indicate higher production. During the past three years tests in Indiana have shown yields to be equal or higher.

"Both Illinois and Indiana are moving from the "breeder stage" into production. In Indiana the Purdue Association has 30 acres of male sterile corn for harvest this fall. Next year it will be used as seen parent and the following year released to farmers as seed for planting."

All the birds in Sussex live in trees at the end of my garden, and Sussex birds talk from sunrise to sunset. Yet when I make my first appearance with spade and green apron a sudden silence falls upon them. It is like nothnig save its parallel—the hush into which bird-life reverently falls at the time of an eclipse. For the space of about five minutes the silence lasts and then every sparrow, blackbird and starling starts laughing at the top of his pipe. Don't you know why? I'm going to start the dear old annual game of putting seeds in the soil for them to dig up. What a lark!"—B. M. Hastings.

Flowers are like guests; some you have to entertain and wait on constantly; others are resourceful and independent.—Richardson Wright.

An old lady's advice on how to choose a gardener; look at his trousers. If they're patched at the knees, you want him; if they're patched in the seat, you don't.—FARMER'S JOURNAL, Belfast.



## BOOK REVIEWS

By

MRS. L. N. BRAKKE



Mrs. Brakke

Modern Gardening, by Dr. P. P. Pirone, Published by Simon & Schuster, Inc. Rockefeller Center, 630 Fifth Ave. New York 20, N. Y., 370 pages. Price \$3.50.

Modern Gardening gives full in-

formation on how to feed plants thru their leaves, how to spray weeds to death, how to beat the insects, and how to speed up or slow down the growth of vegetables, flowers, trees and hedges. The first complete guide for the use of the various miracle drugs that modern chemistry has developed. Agricultural economists estimate this country's annual loss to plant enemies at six billions dollars. A special section gives answers to some five hundred frequently asked questions. Dr. Pirone, one of the first practicing plant doctors with a Ph.D. in the country, has been spraying chemicals on trees, flowers and vegetables for 25 years. Since 1947 he has been plant pathologist at the New York Botanical Gardens, where he is responsible for the health of more than 12,000 different kinds of plants.

Wild Flowers for Your Gardens, by Helen S. Hull. Published by M. Barrows & Co., Inc., 425 Fourth Ave., New York 16, N. Y., 280 pages. Price \$4.95.

The author shares her joys and experiences with 50 of the most popular native wild flowers during the past 25 years. The book contains 20 full pages of photographs, 8 in full color, from the authors own garden. Sixty-three drawings include favorite plants from other wild flower enthusiasts in each of 48 states. The South Dakota contributor is Mr. Claude A. Barr of Smithwick, a member of our State Horticultural Society, a propagator of native plants whose talk at our last annual meeting was greatly enjoyed by all that heard him. There are over 40,000 species of wild flowers native to the United States. Over 5,000 in Texas

alone. Many that would grow in our climate would not thrive elsewhere, and many would become troublesome weeds and should not be encouraged by us in our gardens. The author shows you how to choose your plants, their soil and care. Numerous lists of choice native plants, flowering trees, shrubs and vines, source of supply for seeds and plants, their scientific and common names. With this complete guide a garden of wild flowers becomes easy to establish and maintain. Mrs. Hull, the author of this book is known where ever plants are grown, she has visited wild flower regions, gardens and gardeners all over America. When President of National Council of State Garden clubs, she became known to 287,000 members of the largest gardening organization in the world. In 1948 she received the medal of the National Garden Institute "For making the greatest contribution to Gardening in the United States." A very interesting book.

John Turnipseed at the state fair: The feller who was barkin' out front for the girl show looked kind of down in the mouth when I engaged him in conversation. "How's business," I said.

"Rotten," he says.

"Yah I know," I says, "but are you makin' any money?"

"Naw," he says, "people won't pay any money to see undressed ladies any more. You can see all the bare legs; you can stand on main street, and if you go down on the beach, there's no tellin.' Well, life's like that. Mebbe things will pick up a little when the weather gets colder."

You know, I was real sorry for the guy.—PRAIRIE FARMER.

A garden in the whole sense of the word, holds more than smart shapes and colors; it holds evocative meanings and mysterious, and for the man or woman whose hands it knows possesses powers to give inner peace and surcease from the jangle of the day.—Chester P. Holway, in HORTICULTURE.

Rotted Manure: Why do gardeners always say rotted? Where can you get well rotted manure? The manure boys say that we are 30 years behind in our thinking. Held that manure is O.K. if you know how to use it. Use it for humus and not fertility.—L. F. McBrien in THE EARTHWORM.

## AWARDS FOR 1953—

(Continued from page 86)

ing session. The courses each consist of lectures, practice judging and written examinations.

A record of eleven students wrote the examinations over Course V, nine of them having previously passed all four courses. Only the reading examinations remain to be written some time after six months have elapsed, South Dakota will have a quota of Nationally accredited flower show judges. Eight garden clubs are represented by these students, with the Green Fingers Garden Club of Hurley topping the list with three high-ranking students. It is the only club which has more than one student taking the whole school. Those passing all five courses (we hope) are, as follows: Mrs. D. S. Baughman, Madison; Mr. L. S. Bush, Yankton; Mrs. Menholt Christensen, Hurley; Mrs. H. B. Crandall, Sioux Falls; Mrs. R. G. Ferris, Sioux Falls; Mrs. Geo. M. Jorgensen, Dell Rapids; Mrs. Francis Nelseon, Hurley; Mrs. Lewis Severance, Huron; Mr. Wm. Snyder, Brookings; Mrs. Lee Thompson, Hurley.

Judging students owe much to the time and efforts of Mr. Bush in handling these schools. Appointed as chairman by past president Mr. Atkinson, he has been in charge four years while himself taking the work as a student. He has hired fine instructors and put the courses through in a highly creditable manner.

Fathers, instill into your children the garden mania. They will grow up the better for it. Engaged in planning how to shade a glen or in contriving how to divert the course of a stream, one is too busy ever to become a dandier citizen, an intriguing general, or a caballing courtier.—Charles Joseph (eighteenth century).

How deeply seated in the human heart is the liking for gardens and gardening! Is the fancy too far brought that this love for gardens is a reminiscence haunting the race of that remote time in the world's dawn when but two persons existed—a gardener named Adam and a gardener's wife called Eve?"—Alexander Smith.

A garden is an awful responsibility. You never know what you may be aiding to grow in it.—Charles Dudley Warner.



## SECRETARY'S CORNER

By W. A. SIMMONS



W. A. Simmons

In sending in his yearly dues, Dr. L. A. Yager, formerly with us as Extension Horticulturist, but now in a similar position at Bozeman, Montana, writes: "Am busy judging fairs on the east end of the state. I judge Sidney on Monday and Glasgow and Chinook, later in the week. Temperature has been around 100% the past few days. The quality of the vegetables, fruit and flowers at the fairs is very good this year in spite of dry weather. The warm weather has brought on some excellent warm weather crop exhibits, ripe tomatoes, sweet corn, watermelons etc. Moisture conditions have been variable in the state and on the whole, we have not suffered too greatly from dry weather. Yellowstone Park is receiving a record attendance this year. Made two visits to Glacier Park early this summer." Dr. Yager never seems to forget his many friends in South Dakota, nor will we soon forget him. Am told by Mr. Dybvig, who evidently made the mistake of reading it, that Jove must have nodded, or more probably was sound asleep, when I wrote in our report that Mr. Wallner received the Robertson award at the Yankton meeting. As all will know that read the magazine at the time that the award went to Mrs. Geo. M. Jorgensen, who certainly richly merited it. My apologies go to Mrs. Jorgensen, that most wonderful lady that has done so much for the State Federation of Garden Clubs and I hope she won't think the mistake was intentional. As we go on planting many trees every year in South Dakota to change for the better what was, when I first saw it in 1890, a great treeless plain, it seems rather odd that the Governor of Ohio was asking for the planting of ten million trees in his state, this year.

When our tribe moved into northern Ohio in 1817, displacing other red-faced people that had beat us to it, the great problem was to get rid of the wonderful forests so food crops could be planted. Land was given to my ancest-

ors in what was known as the "Firelands" of northern Ohio, to compensate them for their property that had been burned in the Wyoming valley of New England by General Arnold and his Red-coat command. Wonderful timber had to be cut down and burned so farming could be started, which would be worth a small fortune now, but which was valueless then. Now they find the need of planting trees, just as though they had never had any. They seem to have given up on the elm, as I do not find it on the list of varieties their people are asked to plant. I hope it will be a long time before the westward march of the elm diseases makes it necessary for us to also drop this beautiful tree. October 31. Terribly dry here, only 18.03 inches of precipitation all the year, to date, only .47 in September and none at all in October. If this continues we will have to learn the chickens knack of cleansing themselves by rolling in the dust and learn to like the beverage that made Milwaukee famous. I thought we were being treated very badly in the moisture department till I received a letter from Mr. Charles Collier, a long time and faithful member at Ipswich. He wrote: "Very dry here, but you will sleep sounder after you have read by below, rainfall report. April—.03, May .91, June—3.48, July—1.29, August 2.78, September—.11, October—none. Total rainfall for 6½ months, 8.60 inches. It makes us wonder what has happened to our rain-making apparatus. Mr. Melvin Holey of Stanley, N. D., writes: "I like your publication very much. It is regrettable sometimes that climate doesn't measure up to the enthusiasm of Great Plains gardeners." Capper's Farmer says:

"Powdered potatoes: Keep your eyes on a product called potato granules. The dried powdered spud may have the same effect on the potato industry that frozen orange juice concentrate had in the citrus field. A standard No. 10 can (a little less than a gallon) of potato granules, with the addition of hot water, will make 100 servings of mashed potatoes, or about 30 pounds."

Our KP service men will hope the government finds out about it soon. We are indebted to Hon. Harold Lovre for a fine addition to our library, the 1952 year book of Agriculture, the subject, this year being Insects, there are close to a thousand pages in it; it

should keep you in insects all winter. As this will be our last opportunity of passing along our wishes and sage advice, before the turn of the year, we hope you will all watch your calories at Thanksgiving time, will find your stocking well-filled at Christmas time, to make it a Merry Christmas, will ask your legislators to give us back our appropriation, thereby making it a happy new year for all of us, and that you will have a sane 4th of July.

## THE TREE PLANTER

By

N. O. MONSERUD

I have known for some time that squirrels did considerable tree planting, but never realized what a thorough job they did, until a short time ago, when early one morning I was watering a newly planted lawn, I was treated to a lesson in tree planting.

A squirrel came across the lawn carrying a walnut with the husk on, larger than his head; he stopped, looked over the ground and the surroundings, then moved over a few feet looked around some more, then still holding onto the nut, he went to work; his front feet worked like little pistons digging a hole,—then he tried the hole for size,—dug some more, still holding the nut, dug until he had a hole about the size of a water glass, then he pushed the nut to the bottom, putting all his weight on it,—then he commenced to fill in dirt, a little at a time, and packing the dirt all around the nut with his little feet, then some more dirt, and more packing until all the dirt was gone,—then he packed the top surface until the place could hardly be noticed, and away he went.

How interesting to observe the instinct and knowledge of some animals. This squirrel did not bury this nut for food; when winter sets in the ground will be frozen hard; no, he intended to plant a tree; and he had all the planting technic; he knew the proper depth—the importance of packing the earth firmly to avoid air pockets, also packing the earth firmly around the nut, so that the new sprout can make immediate contact with the soil. This tree planter will likely not live long enough to even see the tree; but he was providing for future generations. How resourceful and far-sighted some dumb animals are—and what lessons some humans could learn from them.

South Dakota • HORTICULTURE



## WE ALL HAVE SOME SEA IN OUR BLOOD

By

W. EARL HALL, Editor

THE MASON CITY GLOBE-GAZETTE



W. Earl Hall

For weeks at least and I think maybe for months, a little volume has been peering down at me in a most inviting way from an end position on the shelf for current books in my library. The other night I could stand up under the invitation no longer. This is to report that I was well rewarded in the reading.

The 230-page book—including index—is titled "The Sea Around Us." It's a fascinating story about the dominant feature of our planet from the time of its inception. It's the story of the oceans.

And perhaps the most surprising fact about the work is that it's the work of a woman, Rachel Carson. While she had help from many authorities in the field of oceanography, geographers, geologists, archaeologists and other specialists in the wide scope touched on in the book, it's essentially Miss Carson's own handiwork. She establishes herself as a competent scientist and a skillful writer.

One of those who gave assistance to her and shows up at several places in the book is Thor Heyerdahl of Oslo, Norway. Does the name register? He's author of *Kon-Tiki*, another book about the ocean which has been spectacular success within the past year. And isn't it strange how great has been the popularity of books about the sea in recent months?

### Circumstantial Evidence

Because nobody was on hand to witness the process, the account of how the Earth acquired an ocean must be pieced together from many sources. Rocks and fossils are among the best historians of those times, estimated at around two billion years by Miss Carson.

In cases where there were conflicting hypotheses, the author exercised her prerogative of selecting the one which appealed most to her and had greatest sanction among those in a position to

judge. No reader is required to go along with her against a prior conviction. But the story she tells will cause any such person to re-examine his prior convictions.

To me one of the most absorbing subjects dealt with in "The Sea Around Us" was that of tides. There were tides in the infant earth, we're told, long before there was an ocean. Molten liquids of the earth's surface were subject to the pull of the sun in just the same way that the oceans are today—with this difference: There was no land then to block the tidal movements.

### Moon Cast Off by Earth

And therein lies one of the most mind-arresting propositions ever advanced: From those tides the moon may have been born! Under that hypothesis the moon becomes the child of the earth. The story goes thus in Miss Carson's words:

"Physicists have calculated that, after some 500 years of steadily increasing tides, those on the side toward the sun became too high for stability, and a great wave was torn away and hurled into space. But immediately, of course, the newly created satellite became subject to physical laws that sent it spinning in an orbit of its own about the earth."

There are reasons for believing, according to "The Sea Around Us," that this sloughing off of the earth's crust occurred after there had been some hardening, instead of during the partly liquid stage.

"There is," to quote from Miss Carson, "to this day a great scar on the surface of the globe. This scar or depression holds the Pacific Ocean."

Here she quotes some geophysicists as saying that the floor of the Pacific is composed of basalt, the substance of the earth's middle sections, while all other oceans are floored with a thin layer of granite.

"We immediately wonder," observes Miss Carson, "what became of the Pacific's granite covering and the most convenient assumption is that it was torn away when the moon was formed."

### Before Oceans Were Formed

All of this, if we accept the hypothesis, was not only before the advent of life on earth but before the oceans had appeared. About the hot earth were dense layers of clouds. No sun could get through—water would turn to steam from the earth's heat.

Then came the cooling of the earth's crust and an age of rains—centuries of rain that poured into the waiting ocean basins in which ultimately was produced that "mysterious and wonderful stuff called protoplasm." Life was created where none had existed before. The author of "The Sea Around Us" is wise enough not to speculate on this in more than a general way.

All this happened in the sea. There was no life on the continents, and no inducement to life as this word picture by Miss Carson strongly suggests:

"Imagine a whole continent of naked rock, across which no covering mantle of green had been drawn—a continent without soil, for there were no land plants to aid in its formation and bind it to the rocks with their roots."

### "No Living Voice"

"Imagine a land of stone, a silent land, except for the sound of the rains and winds that swept across it. For there was no living voice, and nothing moved over its surface except the shadows of the clouds."

Returning to those tides again, have you ever considered why they are more influenced by the moon than by the sun? There's a rather convincing answer to this in "The Sea Around Us."

As we've already seen—if we accept the story—the sun made the earth's tides in the molten rock stage. Then came the tearing away of a part of the outer crust of the earth to form the moon. For a time the moon remained close to the earth but it's been receding constantly since that time, getting farther and farther away from Mother earth.

"When the moon was half its present distance from the earth," "The Sea Around Us," "its power over the ocean tides was eight times as great as now. The tidal range may have been several hundred feet on certain shores."

(Continued next issue)

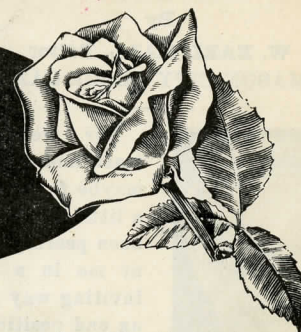
Fascinated by the hot pools and springs at Yellowstone Park, thoughtless tourists by the thousands are clogging them with rubbish. Some, like the famous handkerchief pool are completely choked; they stopped functioning many years ago. When the Morning Glory pool was cleaned by forced eruption in 1950, beer bottles, empty cans, china, shoes, clothing and over a hundred other items were discharged.—CAPPER'S FARMER.



Wayside.....



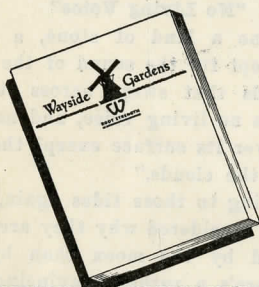
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Gardens

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Miss Mazie Slump was married to Mr. Tom Slinker last Friday afternoon. The wedding of this popular couple took place in Paeson Pilkins' living room. The bride is a graduate of the sixth grade at Goose Ankle graded school and the groom is in charge of the shoe department at the Commercial House Barber Shop.