

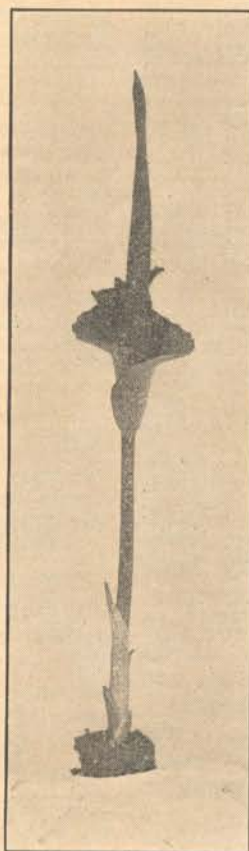
Volume VIII.

Dr. N. E. Hansen

Number III.

NORTH AND SOUTH DAKOTA HORTICULTURE

MARCH 1935



THE SACRED LILY OF INDIA

634.05



THE RAVEN

O. A. Stevens

This bird is probably familiar to us chiefly through literature and folk lore. It is a bird of wide distribution but keeps to the rougher country and unsettled districts. It was formerly found in places where it has now been absent for many years. The raven of course belongs to the crow family of which some other familiar American members are the jays and magpies. The jackdaw and rook of Europe also belong to the group.

The raven occurs practically all through the northern hemisphere, several races being described for Europe and two or three in America. From the crow it differs in that the total length is about one-fourth greater, the tail more rounded and the throat feathers somewhat elongated, pointed, more glossy, and either gray or white at their bases. Some writers comment that when seen together the larger size is quite distinctive, but with either one alone it is more difficult to judge.

Dr. T. S. Roberts records that ravens were formerly quite common over the northern half of Minnesota, but that very few have been seen in the last ten or fifteen years. In early days they were common along the Missouri River in North Dakota. Lewis and Clark mentioned them as wintering at Fort Mandan while the crows all migrated. Prince Maximilian, thirty years later, also noted them in winter but seems not to have seen them during the summer. Audubon in 1844, mentioned seeing a few ravens. In 1873 and 1874 Major Elliott Coues observed a few along the northern boundary of the State. J. A. Allen in 1875 saw a few almost daily when traveling from the Missouri River westward. Hoffman at Fort Berthold in 1882 saw them only rarely. Since that time they apparently have been quite rare. Adrian Larson, who observed birds closely in McKenzie County from 1914 to 1926, reported seeing two birds in 1920. H. V. Williams records only two seen at Grafton, one in 1921 and 1922. The South Dakota records I do not have so well at hand but they no doubt run about the same. Over and Thoms state (1921): "found at present only as a straggler in the Black Hills."

As already indicated, the ravens are not regularly migratory, though in winter they wander more or less and probably drift southward to some extent. They occur northward in the Greenland region about as far as there is any land, and many of them at least, spend the winter north of the Arctic Circle. Writing from a winter camp in that latitude in Alaska, Joseph Grinnell recorded that one or more birds would

Volume VIII.

March, 1935

Number III

Entered as second class matter at the Postoffice at Sioux Falls, South Dakota, under the Act of August 24, 1912.

Membership in the South Dakota Horticultural Society is one dollar; fifty cents of this amount is for the subscription to "North and South Dakota Horticulture." The subscription rate for affiliated organizations is twenty-five cents per member.

Published monthly at Pierre, South Dakota, by the North and South Dakota State Horticultural Societies.

SOUTH DAKOTA OFFICERS

F. X. Wallner, President.....Sioux Falls, S. D.
Geo. W. Gurney, Vice-President.....Yankton, S. D.
W. A. Simmons, Secretary and Editor...Sioux Falls, S. D.
H. N. Dybvig, Treasurer.....Colton, S. D.
Chas. McCaffree, Librarian.....Canova, S. D.

MEMBERS OF THE EXECUTIVE BOARD

J. B. Taylor, five years.....Ipswich, S. D.
E. A. Gates, four years.....Rapid City, S. D.
H. E. Beebe, three years.....Ipswich, S. D.
Prof. Purley L. Keene, two years.....Brookings, S. D.
R. W. Vance, one year.....Pierre, S. D.

NORTH DAKOTA OFFICERS

Charles Eastgate, President.....Dickinson, N. D.
Mrs. J. A. Strong, Vice-President.....Walhalla, N. D.
L. O. Peterson, Vice-President.....Hankinson, N. D.
Dr. A. F. Yeager, Secretary..... Fargo, N. D.
E. L. Shaw, Treasurer..... Fargo, N. D.

TABLE OF CONTENTS

	Page
The Raven, O. A. Stevens.....	26
North Dakota News Letter, A. F. Yeager.....	27
Premium List for 1935	28
South Dakota Notes, R. W. Vance	30
Pruning of Fruit and Ornamental Trees, G. W. Gurney	31
Pruning, Dr. A. F. Yeager	32
President's Corner, F. X. Wallner	33
Secretary's Corner, W. A. Simmons	33
Honor Roll	34
Our Friends at the Breakfast Table, Dr. Ferd. Brown	35

be seen flying along the river even on the coldest and windiest days.

Their nests are much like those of the crow but are placed more commonly on rocky cliffs instead of in trees. The eggs are a little larger than those of the crow but otherwise similar. In food habits they also resemble their relative. Carrion, particularly dead fish along rocky shores, injured birds or other animals, as well as birds eggs and young, form a large part of their diet. Where not disturbed they have attended hunters and thrived from the offal from the game. They seemed to have lived in peace with the Indians, but when the white man came with his rifle they moved away.

Descriptions by various writers indicate that when not persecuted they may become quite tame

(Continued on page 29)



NORTH DAKOTA STATE HORTICULTURAL SOCIETY NEWS LETTER



A. F. Yeager,
Secretary,
Fargo, N. D.

Our State Horticultural Society family has suffered a great loss in the death of our president, Mr. Charles Eastgate of Dickinson. He has always been very active in promoting anything to benefit the state and his passing will be felt by many in the western part of North Dakota.

Still another loss to our Horticultural Society family is Mr. W. F. Moore, Carrington, who died last month. While Mr. Moore has rarely attended the

meetings, he has always been an active member through correspondence. He has also been a useful cooperator in testing new things and in reporting interesting developments in his territory. Only last fall he sent in budwood from a cherry tree near Carrington which he thought might be a variety worth propagating.

H. H. Harris in "Wisconsin Horticulture" says it is useless for anyone to plant strawberries without straw or hay for winter protection. If this is true in Wisconsin, it is doubly true in North Dakota.

"Small Fruit Culture" by Shoemaker is the finest publication we have seen in its field. It is published by P. Blakiston's & Son, Inc. Incidentally, Mr. Shoemaker has just gone to Saskatchewan to head the Horticultural work at the University of Saskatchewan.

"Crossed Sweet Corn" is the title of Bulletin 361 of Connecticut Experiment Station, New Haven. It has a great deal of information about first generation crosses. Unquestionably carrying inbred lines of corn and raising the field crop each year from crosses between these may give a much better and more uniform product than can be obtained by the use of ordinary seed. However, to get this effect, new crossed seed must be used each year and seed cannot be saved from the general field. Where absolute uniformity of product and time of maturity are highly important, for instance, in raising corn for the cannery, the use of crossed seed is a very paying proposition.

"Studies in Plant Propagation" is the title of Bulletin 571 of the New York, Cornell Experiment Station. Among other experiments they tried to determine was whether in making cuttings the cut should be made below or above the nodes. They found some plants worked the best when the lower cut was used, some best above a node and some best at the node. The following plants which we are interested in North Dakota were found to work best when the cut was one

half inch below the node. Morrow Honeysuckle, Tatarian Honeysuckle, Japanese bush cherry, Alpine currant, Buffalo currant and Vanhouttei spirea. Summarizing the whole test it showed that with 86 common shrubs, 41 worked best with the cut one half inch below the node, 17 when the cut was made at the node, 5 when the cut was above the node, and with 23, no difference was recorded.

Dr. Lindstrom of Iowa State College discovered a single kernel of sweet corn in some pedigreed dent corn in 1929. This has bred true. This is evidence that sweet corn is a sport from field corn.

Probably most of us do not appreciate the fact that there are many named varieties of snapdragons. While the average home gardener does not require that every plant shall be alike in size of plant, size of blossom and color, the florist who sells flowers must have a uniform standard product. It is for his benefit that these named varieties have been produced. Nevertheless, the gardener should appreciate the fact that if he wants a snapdragon in some exact shade and size it is possible to get it.

J. E. Hartman of the New York, Ithaca, Experiment Station says that a seed potato in the best condition should have at planting time a sprout as large as possible, but one which does not protrude so far out of the eye that its tip is likely to be damaged.

Some of the blue varieties of *Salvia* are making their appearance in our flower gardens. They are hardly the equal of the scarlet varieties as yet, but do offer much promise.

By heating gladiolus bulbs to a temperature of 86 degrees for two weeks before planting, Iowa State College found that they sprouted earlier and matured blooms several days earlier.

"Woolgatherer" in the "Florist Exchange" says that the recent discovery of the fact that glazed flower pots are just as good as porous ones was discovered 90 years ago by a gardener in England and that this English gardener seemed to have been re-discovering something mentioned long before his time. No doubt the reason why so many important discoveries in the past have been lost and re-discovered lately comes from the fact that methods of recording and distributing information were not so efficient as they are today. Very often someone planning an experiment upon looking through the literature of the past finds that the problem has been solved long ago, hence, the necessity for good library facilities in connection with an experiment station. Our work here at North Dakota

(Continued on page 29)



SOUTH DAKOTA HORTICULTURE SOCIETY PREMIUM LIST FOR 1935

South Dakota State Horticultural Society annual members, in addition to receiving our magazine for a year, are entitled to one premium from section I or two from section II. Please make your selection before May 1, and send your dollar and your choice of premium to W. A. Simmons, Court House, Sioux Falls, South Dakota.

Section I.

The Gates Nursery, Rapid City, South Dakota, is donating the following premiums:

1. Red Flesh Crab.
2. One Oka Cherry.
3. Two Delphiniums, light blue.
4. Six Latham Raspberry Plants.

The following is donated by J. B. Taylor, Northern Seed and Nursery Co., Ipswich, S. Dak.:

5. One Dolga crab apple tree. That fine jell crab.
6. One Anoka apple tree. The summer apple tree that often bears the second year.
7. Ten Buckthorn, 12-18 inch.
8. One Diploma currant.

The following is offered by H. N. Dybvig, Dybvig Nurseries, Colton, S. Dak.

9. Three Elegans lily bulbs.
10. Four Tiger lily bulbs.
11. Two hardy phlox, named.
12. Six Tenefolium lily bulbs.

The following is donated by the House of Gurney, Yankton, S. Dak.:

13. Four Cannas.
14. One Opata plum tree.
15. One Peony, state color wanted, Red, White, or Pink.

The following is donated by the George Gurney Nursery, Yankton, S. D.:

16. Ten Gladiolus bulbs.
17. One Pauls Scarlet climber rose.
18. Four Iris, good varieties.

The Wahoo Lodge Gardens, Sioux Falls, S. Dak., A. N. Shafer, Mngr., is donating the following premiums:

19. Pink Cushion, finest hardy outdoor and early flowering Chrysanthemum.
20. Red Rover, Sensational new red flowering hardy aster.
21. Belle de Nancy, double pink French lilac, blooms young.
22. Grootendorst, hardy constant blooming rose.

Section II.

The following seeds will be donated by John Robertson, Hot Springs, S. Dak.:

23. Winter watermelon seed.

24. Bison Tomato Seeds.

25. Buttercup squash seed.

The following is donated by our President, F. X. Wallner, Sioux Falls, S. Dak.:

26. Yeager's Pink Heart tomato seed.
27. Fargo yellow-pear tomato seed. Nearly twice the size of the ordinary pear tomato.

The following is donated by R. W. Vance, Pierre, S. Dak.:

28. Giant California Zennia.
29. Dwarf Pink Petunia.
30. Giant double marigold.

NORTH DAKOTA STATE HORTICULTURAL SOCIETY PREMIUM LIST FOR 1935

Paid up members of North Dakota State Horticultural Society for 1935 may choose free, one premium from Group I or two from Group II. No premium requests accepted after May 1.

Group I

1. One plant Rhus aromatica. A desirable native shrub from Montana. Northwest Nursery Company, Valley City, N. D.
2. Three Flowering Currant plants. Desirable native for ornament and fruit. Oscar H. Will & Company, Bismarck, North Dakota.
3. One three-eye division of Couronne d'Or peony. Oscar H. Will & Company, Bismarck, North Dakota.
4. One Black Hills spruce transplant 10 to 12 inches high. Wildrose Nursery, Wildrose, North Dakota.
5. One potted English Ivy, new branching type. A desirable vine for indoors. Fargo Floral Company, Fargo, North Dakota.
6. One potted Philodendron. A new vine for raising in the house. Shotwell Floral Company, Fargo, North Dakota.
7. Two plants N. D. P-117 raspberry. A new variety of the purple fruit type offered for first time as a possible hardy, drought-resistant variety. North Dakota Agricultural College.
8. Two plants yellow-fruited Buffalo currant. Similar to the black except for color. North Dakota Agricultural College.
9. Five scions Cooper sandcherry hybrid, seedling of Compass cherry from North Dakota Agricultural College. Offered as a superior canning variety. North Dakota Agricultural College.
10. Five scions Mordena sandcherry hybrid. A new variety from Morden Experimental Farm, Canada. Said to be as hardy as Opata, but better quality. North Dakota Agricultural College.
11. Five cuttings Tamarix Pentandra amurense. A large hardy ornamental shrub. North



Dakota Agricultural College.

12. One pound Golden potato. A new variety from U. S. D. A. Late, yellow-fleshed. North Dakota Agricultural College.
13. One pound Chippewa potato. A new U. S. D. A. variety. Fairly early, smooth, white. Looks promising. North Dakota Agricultural College.

Group II

14. One packet N. D. No. 216-2 tomato. The first of a new series of tomatoes having Bison vine type, earliness and in addition a uniform color, no green stem spot. North Dakota Agricultural College.
15. One packet table variety of soy beans, F. P. I. No. 81037. Imported from China by U. S. D. A. North Dakota Agricultural College.
16. One packet Winter Sweet watermelon. Formerly distributed as Green Russian. Early red-fleshed, highest quality and good keeping. North Dakota Agricultural College.
17. One packet Favorite Honey watermelon. A small, soft-shelled, yellow-fleshed, good-flavored watermelon. The earliest we have seen. North Dakota Agricultural College.
18. One packet Pinkie popcorn. A new high quality popcorn with pink seed. Pops white. North Dakota Agricultural College.
19. One packet Blackie eggplant. A new, early, large variety from Canada. North Dakota Agricultural College.
20. One packet hardy Antirrhinum (snapdragon). W. E. H. Porter, Hansboro, North Dakota.
21. One packet Radio peas. The earliest dwarf variety, North Dakota Agricultural College.
22. One packet Lincoln peas. Midseason. The best variety in trials at North Dakota Agricultural College.

Our cover page shows the Sacred Lily of India, now in bloom in the home of C. M. Christianson, 1919 S. Prairie Ave., Sioux Falls, S. D. The bulb of this lily is about the size of Dr. Yeager's Buttecup squash and is planted in the garden in the spring, at a depth of four inches. There, it makes a very attractive tropical appearing plant during the summer months, growing to a height of about four feet, but it does not blossom in the garden in our latitude.

Frost kills it to the ground, after which, the bulb is taken up and set on the cellar floor and left there without either soil or water. After a few months the flower stalk appears when it is brought up to light and heat and the growth is very rapid, often eight inches in a single day. It grows to a height of about three feet when the blossom begins to unfold and adds about 3½ feet to the height of the plant.

The blossom is dark maroon in color and has the odor of over-ripe meat, evidently being designed to attract carrion loving insects. Its Latin name is even worse than its odor and is spelled *Amorphophallus Rivieri*, you can pronounce it yourself. In shape the blossom resembles a gigantic calla lily the lower portion being 21 inches in diameter.

THE RAVEN

(Continued from page 26)

and make interesting pets. In nature they are said to be unsocial and comparatively silent. P. A. Taverner describes their voice as "hoarse and rattling, with a wooden quality."

We hope as many as possible of both Dakota societies will plan to take in the summer meeting of the S. D. Society in the beautiful Black Hills. We will meet in Hot Springs July 18, and the tour will extend to the end of the following day.

If you have seen Robertson's orchard you will want to see it again and the same applies to the entire Black Hills region.

NORTH DAKOTA NEWS LETTER

(Continued from page 27)

is sadly handicapped by a deficiency in this respect.

Erwin of Iowa State College in "Science" reports that an ear of sweet corn discovered in New Mexico ruins dates back to somewhere around 1200 A. D. which is proof that the Indians grew sweet corn long before the discovery of America.

As an example of what might be done with almost any kind of a plant breeder, Richard Diener of California started six years ago with the Alaska variety of Shasta daisy. He now has many valuable varieties ranging from double to single with various sizes and styles of petals.

The following are some quotations from a letter from Mr. Leslie of Morden, Manitoba, to a friend of mine, which seems worthy of mention:

"*Daphne cneorum* seems perfectly hardy here, and is one of our most cherished small shrubs. Some years it blooms three times, and behaves as a persistent evergreen."

"*Evonymus nana* behaves as a hardy broad-leaved evergreen, and is highly esteemed. There are a number of other members of this family. Your native Burning bush, *E. astropurpurea*, as grown from seed obtained from Minnesota is probably the most useful."

"*Cotoneaster horizontalis* appears tender, where as *C. adpressa*, similar in type and from stock obtained from the Rock collection in Central China, has been hardy and useful."

(Continued on page 31)



SOUTH DAKOTA NOTES

R. W. Vance

An issue of The National Geographic Magazine will soon devote a considerable part of its space to an article on the honey bee. The issue a few months ago carrying an article on spiders was very interesting and well illustrated as usual. The issue containing the bee article should be very interesting to beekeepers.

It has been many years since the efforts put forth toward eradicating bee disease will give as great results as it will this next spring and summer. Many of the bees, especially of the smaller beekeepers have died and the combs have been destroyed. In this way much disease is also destroyed. This leaves fewer bees and less disease so an equal amount of work will clean up more territory than it did several years ago. When replacing bees in the hives be sure the combs are free from disease and encourage your neighbor to watch his bees for disease. Cooperation and understanding between beekeepers will do more to eradicate bee disease than can be accomplished by the state inspectors. The only time it should be necessary for an inspector to do work is when someone refuses to clean up disease or neglect to examine his bees and becomes a nuisance to the industry. It will always be necessary to do some inspection in cases of this kind.

We will have large quantities of farm seed grain shipped into South Dakota this year. Since we have a seed law that is practically unenforceable we can expect to be the dumping ground for seed grain that contains seed of the most damaging noxious weeds which cannot be sold in neighboring states. Some writers speak of these weeds as obnoxious weeds. They probably would be once you had to contend with them. If a law is passed at this session of the legislature, it cannot become effective until July 1, 1935, and the grain will have been planted by that time.

The Dutch Elm disease was discussed at the Horticultural meeting. The Dutch Elm disease apparently was introduced from Europe by means of shipments of elm burl logs into the United States which were used for veneering purposes in our manufacturing plants. A quarantine prohibits the entry of the logs or any parts of elm trees carrying bark. The fine elm trees in certain parts of some of our eastern states have been killed by this disease. Two bark beetles are known to carry this disease from one tree to another and there are, no doubt, other species of beetles that carry the disease. All elm species seem to be affected by the disease. Some species are affected to a greater degree than others.

The United States Department of Agriculture announced a public hearing at Washington, Feb. 15th, to consider the advisability of quarantining the states of Connecticut, New Jersey, and New York on account of the Dutch Elm disease.

South Dakota has had a Dutch Elm disease quarantine for sometime. The following is the South Dakota quarantine:

The fact has been determined that the Dutch Elm Disease (caused by *Ceratostomella ulmi*, Schwarz, Buisman, sometimes known as *Graphium ulmi*, Schwarz) exists or did exist in several of the states of the United States.

Since the Dutch Elm disease, if introduced into South Dakota, would probably do great damage to our elm trees,

Now, therefore, I, Charles A. Russell, Secretary of Agriculture of South Dakota, by virtue of the power and authority vested in me by the provisions of the act entitled "Inspection of Nurseries and other Entomological Work," Chapter 115, Session Laws 1925, hereby prohibit and declare unlawful the importation and shipment directly or indirectly into the State of South Dakota from any county in any state or territory having, or having had trees infected with the Dutch Elm disease, and from any other counties in which Dutch Elm disease is found to exist as hereinafter determined by any state, territory, or by the U. S. Department of Agriculture, of all species and genera of the family ulmaceae, including the genera *ulmus*, *celtis*, *Zekova*, *ampebocera*, *aphananthe*, *Barbeya*, *Chaetachne*, *Chaetoptelea*, *Gironnera*, *Holoptelea*, *Lonzanella*, *Parasponia*, *Phyllostylon*, *Planera*, *Pteroceltis*, *Trema*, and all species, varieties and strain thereof, including seed or parts thereof, except that products made from the wood of the above mentioned genera and their species, varieties and strains may be shipped into South Dakota, provided the wood used in the product has been so processed as to eliminate all risk of its containing any live stage of the Dutch Elm fungus.

This quarantine prohibits the possession within and importation into South Dakota of any living stage of the Dutch Elm disease fungus, including spores, and the elm bark beetles *Scolytus scolytus* Fab. and *Scolytus mulistriatus* Marsh, except by special permission and under conditions prescribed by the Secretary of Agriculture.

Any plant or plant product imported into the State of South Dakota in violation of this quarantine shall at the expense of the owner be destroyed or returned to the point of origin at the discretion of the Secretary of Agriculture of South Dakota.

Any common carrier, person, firm or corporation who shall import or transport material into the State of South Dakota in violation of this

(Continued on page 34)

PRUNING OF FRUIT, ORNAMENTAL AND SHADE TREES

George W. Gurney

Back about thirty years ago the subject of pruning was discussed rather freely and lots of valuable time was wasted as so many seemed to have had experiences which were very different.

The Wisconsin, Minnesota and Dakota Horticulturists all differed. These discussions (so varied) led me to conduct experiments in pruning.

I selected several Duchess and Wealthy apple trees, pruning these in January. Some were pruned severely and some only lightly, others pruned in March and still others pruned in May. The results were that those pruned severely in January and the first part of March never recovered from the shock; while they sent out strong growth in the locality where the pruning was the most severe, the wounds or cuts didn't grow over as they should have. These trees never bore a heavy crop and lasted only a few years.

Those lightly pruned at the same time were less damaged. The May pruning proved the most satisfactory. The cuts grew over in less time, and the trees seemed to stand the shock with but little ill effect. They bore much heavier than those pruned in winter, the new growth being evenly distributed. Winter pruning stimulates growth where the cuts are made while spring pruning does not. This spring pruning was done at the time the first leaves were full size. I found it unnecessary to protect the scars or cuts if they were not too large, if pruned in spring after leaves had started, as the sap would run but little if any.

The trees in the same orchard that were not pruned were the healthier, bore heavier and lived longer.

I have summed up the apple orchard pruning proposition as follows: If you live in a state where there is plenty of humidity, you may prune in winter with a considerable degree of safety, but regardless of where you live, severe pruning at any time is injurious and unprofitable.

In the open country where the air is dry and we have had dry winds, it is better to head trees low, grow the tops rather thick and practice pruning only when necessary to hold the shape of the tree.

Plums will stand more pruning with less damage than apples. The Hybrid plums or those of sand cherry crosses may be severely pruned in order to stimulate new growth as they bear their fruit on new wood. Cherries need but little pruning. Pears should be handled the same as apples.

For a number of years I have practiced the pruning of shade and ornamental trees after the first leaves have attained full size, and find that they recover better at this time with less ill effect than any other time.

I believe it takes an unusually hardy tree to stand severe winter pruning in the open prairie country in the Dakotas. If one watches his trees, whether fruit or shade, as one should and removes branches that are out of place when but a few inches long, his trees will not be damaged and the work will amount to a mere trifle.

NORTH DAKOTA NEWSLETTER

(Continued from page 29)

"Azaleas—even the hardy types do not thrive on our lime soil.

"*Pachysandra* has not been tried. Rehder indicates their being in Zone 5 which is rather tender. They might do in sheltered portions where the snow would mound over them.

"Junipers offer an outstanding supply of evergreen ground covers. They vary considerably. Pfitzer is one of the Oriental Junipers, complete satisfaction here. There are at least three forms of the native, as well as the common Juniper, that are useful." (*Juniperus chinensis*)

Darrow and Waldo report that the length of day is an important factor in producing a rest period in strawberries.

G. L. Philp of the California Experiment Station reports that in cherries a large number of abnormal blossoms were produced in 1932 due to unusually high temperatures in 1931 when the blossoms' buds were being formed. Undoubtedly a similar results may occur with our fruits.

C. B. Sayre of New York reports after six years' testing that phosphorus is the most important nutrient aid in increasing the early and total yields of tomatoes; nitrogen second, and potash third.

That it is possible to have too much of a good thing is illustrated by the fact that while quaking Aspen, if not too dense are beneficial to young Norway pines, too heavy a stand will kill them out, according to the U. S. Department of Agriculture.

The study of cherry pollination in New York shows that the principal varieties of sour cherries are self-fertile, and that they are equally well pollinated by sour and sweet varieties. Sweet cherries are best pollinated by other sweet varieties, but are self-sterile.

A correspondent asks how to plant Scarlet Sage and where to get the seed. This plant is ordinarily called *Salvia*, and is listed under the name in almost any seed catalog. *Salvia* should be started inside, the same as tomatoes, in order to get good bloom.

PRUNING

A. F. Yeager

This is pruning time. To most folks pruning is a strange and magical performance, and the uninitiated is likely to judge the worth of the pruning job by the amount of the wood cut away and perhaps in addition, the skill with which the limbs are removed.

While skill in cutting off branches may be desirable, the value of the pruning process depends mainly upon the thinking which is done before any cuts are made. It is more than probable that the average job of so-called pruning is a detriment rather than a benefit. Before one can prune a plant beneficially, he must know a great deal about the plant he is working on and the objective he wishes to attain. For example, the purpose of a shade tree is to give shade and to be ornamental in its appearance. Most folks come nearer pruning a shade tree as it should be pruned than any other class of plants.

There is a strong tendency to carry the shade tree ideal into the pruning of fruit trees. Pruning an apple tree is likely to consist of "pruning it up" which is a statement often used in this connection. Cutting off the lower branches of the apple tree will make it more nearly approach the ornamental ideal most of us have, but particularly here in the north, it exposes the tree to great danger. Very often such trees with trunks exposed to the sun on the south will be sun, scalded, which is a form of winter injury, in which case the south side of the tree dies, the bark cracks off and very soon the whole tree is gone.

Pruning your fruit tree "up" also results in a delay in bearing; even when no winter injury occurs, every foot the trunk is increased in length will delay the bearing the average of one year.

What an apple tree needs from the point of view of fruit production is to leave on the lower branches, particularly on the south side of the tree. These branches may come out from the main trunk at ground level. In this way the coming into bearing of the tree is hastened and danger from sun scald is lessened.

Pruning a young apple tree should consist in selecting several branches which are to become the main limbs of the tree and removing others. No two branches should come out from the trunk at the same height. Pruning from the time the branches have been chosen until the tree is in bearing should consist principally of leaving the tree alone, except, perhaps for the removal of dead or broken branches.

After the tree comes into full bearing, pruning should consist in cutting out entire branches from the outside of the tree so as to let the

sunlight down into the center. One should work around the tree, look where the branch tips are growing close together, and then take out some of the small branches from these places until light can penetrate down to the main limbs where good bearing wood may be preserved for many years. Always remember that cutting off the end of any branch will result in a multiplication of growing tips and a thickening up of the outside of the tree. This should be avoided.

It is always a doubtful practice to climb up on the inside of a tree to do the pruning because fruit spurs on the larger limbs are likely to be broken off, and for that matter, one who does not appreciate the fact that these short branches inside the tree are the bearing wood is likely to cut them out because he thinks them unsightly.

In a general way, the pruning of plum trees is similar to the pruning of apples, though particularly in the case of sand-cherry hybrids such as Opata and Compass, the necessity for short trunks is even greater than it is with apples.

Time does not permit going into details. We will mention just one other class of fruits with which pruning is a necessity if they are to continue to bear well, the currants and gooseberries. With these fruits there should be a considerable number of stems coming up from the ground. After the bushes have been planted two or three years, the gardener usually gets a good crop of fine fruit. In later years, the tendency is for the fruit to become smaller, more scattered, and more difficult to pick. This is accounted for by the fact that these fruits produce their best and largest fruit on two or three year old wood, that is, on sprouts which are two or three years old. After one has left the bush several years, most of the wood will be older than that. This may be avoided by removing each year some of the canes which are past three years of age and leaving an equal number of young one year sprouts. Unless the older wood is cut out, the young sprouts are likely to be absent. By means of the thoughtful removal of some of the oldest canes each year, it is possible to keep gooseberries and currants in a high state of productivity for many years. Undoubtedly the lack of pruning is one of the reasons for failure with these easily grown fruits.

It is impossible to go through the whole list of plants, but these examples should illustrate the necessity for understanding the plant before performing a pruning operation. Pruning is a cutting operation based upon a knowledge of plants and the effects wanted. First, study your plants. If one has no particular reason for making cuts, he had better leave the plants alone.



THE PRESIDENT'S CORNER

F. X. Wallner

I cannot wait until our meeting in Aberdeen in January, 1936, to give my message as I feel that this Golden Jubilee year is the opportune time. In fact I may have several short messages during the year in this corner of the North and South Dakota Horticulture for you.

The society cannot last much longer just on the life members that are scattered throughout the state, nation and Canada. These life members have received all they are entitled to long ago, except the annual report.

The last few years you have received a magazine monthly, costing more than 53 cents annually to mail to you. Promise me that each of you will send in at least one annual member and an article for the magazine during this Golden Jubilee year of 1935.

The Garden Clubs in the smaller towns have set a pace for the larger cities in the state, and we have had the last meetings, the past few years, where these enthusiastic Garden Clubs are located.

I hope to see the largest garden club in the state at Aberdeen in January, 1936, when we meet there; a membership double that of Dell Rapids or Vermillion, well over a hundred, also 25 new annual members from the Aberdeen vicinity, 25 from the Black Hills district and so on.

I have been criticized for being too enthusiastic about Dr. Yeager's Pink Heart tomato, so I hope to get a good report from those wishing to try it, the report being made at the meeting in January. Any member that will report can get four Pink Heart plants free if he will call at Siebrecht's store in Aberdeen.

There has been a very great improvement in the quality of vegetables the past few years. In sweet corn, Golden Bantam must take a back seat, giving preference to the Golden cross type. In cucumbers we have the long slender dark green cukes that do not turn yellow or white even when ripe and which have a small seed cavity. Carrots also are of a much better quality. We have the coreless or red cored type, and in fact anyone that grows the old kind cannot sell them on the market and must use them for stock feed. In beets we must have the dark red with no white zones. In wax or green beans we must grow the stringless type. It is amusing to have some housewife insisting on "string beans" when in reality she wants the stringless type which when broken up into short pieces ready for cooking will have no strings. In cantaloupes the green meats are out and nothing but the thick red meat melons are salable today. In onions the trend is toward the

sweet spanish type, a mild large globe onion. White onions are second and red ones are at the bottom of the list. It is strange the housewife also insists on red onions just because the old cook books call for them. We have also noticed a tremendous improvement in tomatoes in that we have a quality in the early type.

We have all heard of the vast tree-planting program which the government is starting in this state which makes us realize that we are starting all over again the great work started by the Pioneers Horticulture Society over fifty years ago.

THE SECRETARY'S CORNER

W. A. Simmons

Have secured an office in the Court House here in Sioux Falls where any visiting member can easily find me. No, it is not in the jail. There we will emulate Will Carleton's editor of whom it is written, "The editor sat in his sanctum, his countenance furrowed with care, his mind on the"—renewal of memberships, his feet on the top of a—well, never mind what, if you have seen them you will admit it is some feat for such feet to get on top of anything.

One of Haskin's recent inquiries and the answer are of interest to flower lovers:

Question: Please suggest a simple method of keeping the air moist indoors in the winter-time. C. L.

Answer: The New York State college of agriculture suggests plants and cut flowers. It says vegetative growths give off considerable amounts of water into the air. The pot and soil also help. A cineraria plant in a five inch pot, for instance, gives off an average of nearly a pint of water a day. A pan of hyacinths in flower yields to the air more than a pint of water a day. A medium-sized flower arrangement of stocks and certain other flowers may give off as much as three quarts of water during the life of the bouquet, which is usually from five to seven days.

We are republishing our premium list this month, believing that at this late date our members will be more garden-minded and more inclined to renew their memberships. Also we hope you will show this list to your friends and get new members for us.

Members residing in towns having garden clubs that are not affiliated with the State Horticultural society are asked to send to the secretary the names and addresses of the officers so that an attempt can be made to secure their affiliation.

Black Rose of Sangerhausen

The imagination of the public was aroused a



year or two ago when news was flashed around the world that at last a black rose had been developed. This remarkable variety was then flowering in the famous rose gardens at Sangerhausen, Germany. It was popularly named the "Black Rose of Sangerhausen" and there followed a lively discussion in rose circles as to the possibility of there being a truly black flower. Careful trials in the United States reveal that Nigrette, as it is called here, is not black, but blackish-maroon. No one will be disappointed in this fact.

Tight buds, especially in autumn, give the impression of black velvet, and the full blown flowers vary in color intensity depending on the season. Nigrette is not large-flowered, but it is prolific. There is a rich perfume such as really makes a rose successful.

Two other points worth noting: The rose has been patented, and the name is pronounced "Nee-grette".—Horticulture.

A life membership in our Society can be had for ten dollars, and this entitles the person to as complete as possible file of our cloth bound reports, ten of our premium numbers, and to receive our magazine as long as both remain alive. If preferred, this can be paid for in two installments.

Upon the receipt of five dollars we send the person five reports and allow the selection of five premiums, and carry them on the mailing list for five years. If the second installment of five dollars is not received within five years, his name is dropped from the mailing list and the transaction is closed as far as we are concerned.

In our annual report a list of those that have paid in their first installment will be found and if your name is on the list and has been there for five years, your name will be dropped from the magazine mailing list unless the second installment is promptly sent in. In sending in your last installment, please list the reports you already have and the balance, as far as available, will be promptly sent you together with your choice of five plant premiums. If you prefer, one dollar can be paid now and the balance of four dollars can be paid next year.

A recent discovery by Dr. O. H. Elmer of Kansas State college that storing ripe apples and potatoes together in a closed room or cellar will prohibit the sprouting of potatoes, has attracted wide attention. It seems the ratio must be at least one bushel of apples to five bushels of potatoes to get this effect. Also, when the apples are withdrawn, sprouting of the potatoes will occur.

The potatoes and apples need not be in contact, we are told, but must be placed together in a fairly closed box or room so the ethereal sub-

stance in the apples that does this work will not be dissipated.

HONOR ROLL OF DAKOTA NURSERIES

The following firms have given generously of their planting stock to make our premium offering possible. If in need of anything in their lines, our members are asked to patronize these firms, all of whom we know to be eminently reliable.

Dybvig Nurseries, Colton, S. Dak.
Gates Nursery, Rapid City, S. Dak.
Fargo Floral Co., Fargo, N. Dak.
Geo. W. Gurney Nursery, Yankton, S. Dak.
Northern Seed & Nursery Co., Ipswich, S. Dak.
Northwest Nursery Co., Valley City, N. Dak.
John Robertson, Hot Springs, S. Dak.
Shotwell Floral Co., Fargo, N. Dak.
The House of Gurney, Yankton, S. Dak.
Wahoo Lodge Gardens, Sioux Falls, S. Dak.
Oscar H. Will & Co., Bismarck, N. D.

SOUTH DAKOTA NOTES

(Continued from page 30)

quarantine shall be subject to the penalties provided for in Sec. 8041, Chapter 115, Session Laws 1925.

This notice and quarantine effective January 19, 1935, shall be in force until revoked.

A state cannot make a quarantine contrary to a federal quarantine. That is, they cannot make a quarantine more lax than a federal quarantine, but they can make a quarantine with greater restrictions. If a federal quarantine is removed, the state quarantine is still effective and is always a protection in such a case.

The State Department of Agriculture in cooperation with the U. S. Department of Agriculture will distribute trees to the farmers this spring. The following is the list of trees to be offered; also size and prices:

Green Ash	12-18	\$1.75
American Elm	12-18	1.25
Chinese Elm	12-18	1.75
Cottonwood	12-18	.70
Caragana	12-18	1.75
Black Hills Pine	2-3 yr. old	1.25
Red Cedar	2-3 yr. old	1.25

The Black Hills Pine and Red Cedar were not listed last year. The Red Cedars have lived through the past dry seasons with no loss. They grow native on the steep hills along the Cheyenne River where it seems there is practically no moisture. The Pine when once established withstands the same adverse conditions.

Application blanks can be secured from the County Auditor, County Agent, or Department of Agriculture, at Pierre.



OUR FRIENDS AT THE BREAKFAST TABLE

Dr. Ferdinand Brown, Sioux Falls

Starting about the first of September, when a cold northwest wind reminds us that winter, like prosperity, is just around the corner, up until the warm days in May, when plant and insect life tells us that spring is here, we have guests every morning for breakfast.

These guests consist of Mr. and Mrs. Chick-a-Dee, Mr. and Mrs. Hairy Woodpecker, Mr. and Mrs. Downy Woodpecker, Mr. and Mrs. Nuthatch, and Mr. and Mrs. Brown Creeper.

Some mornings, to add color to the family, we have as honored guests a pair of the most brilliant plumaged, proudest, lovable and most interesting birds in the entire bird family, namely Mr. and Mrs. Cardinal.

For nearly ten years the above birds have been coming to our windows during the winter and spring, to partake of our hospitality in serving them, not only breakfast, but lunch, dinner and short orders, at all times of the day.

To say that these guests are welcome would be stating it mildly, for without them, the day would be almost ruined. We can say frankly that we get more of a thrill, feeding, studying and observing our winged friends, than from any event of the day. To see and almost feel these little Chick-a-dees come right up to the window not two feet from where we are eating breakfast, gives one that kind of an inspiration that one cannot get in any other manner.

To those of you who do not engage in this wonderful pastime, a few words about feeding boxes might be of interest. We like a window with an east front, best. This not only protects the birds from the cold north wind, but it also keeps the cafeteria in better condition. Of course a south exposure will answer just as well.

We have several kinds of feed boxes. A cigar box will do very nicely, if cut down to about one third its original size and we like to have one end about a half inch lower than the other. Tack this on your window sill, and it naturally follows that there should be no storm sash on this window.

We also like a swinging station and this is made by placing a holder such as house plants are suspended from, on one or both side of the window, then suspend your feed tray from this.

It will swing more or less, and we have

learned that the trouble seeking English sparrow will seldom alight on a swinging box. Then too, the birds we feed seem to delight in swinging back and forth while eating.

We also build a long tray, nearly as long as the window sill, and suspend this from the two hangers, and even put partitions in it for the different kinds of food.

This manner of feeding is for the Chick-a-dee, nuthatch, and Cardinal. For the woodpeckers and brown creepers, suet must be placed on nearby trees. The chick-a-dees, however will be guests at all the lunch counters including the suet on the trees, as they will eat most anything, most any time and at most any place.

Another way to feed all these birds, is to hang soap shakers containing suet, nuts, etc., on the limbs of trees or on a line strung from one tree to another. The principle food on the menu for these birds is sun flower seeds as this seems to be the piece de resistance, especially for the chick-a-dees, cardinals and nuthatches tho these three species are also very fond of nuts, especially peanuts and black walnuts.

We grind up the peanuts but the walnuts are broken in a few pieces only and placed in the boxes, the birds seeming to take delight in picking the meat out of them.

We like to experiment in feeding our birds. When the weather is warm enough, we leave the window that has the feeding station open and often place a few seeds just inside. Very often a chick-a-dee will come right into the room.

Another experiment we have tried which proved interesting, early in the fall we have a feed station in the window of a north exposure and when the first cold snap came we placed the storm sash on this window, leaving it pushed out from the bottom.

We were anxious to see if the little chick-a-dee would find its way under the storm sash.

Sure enough, after the first few attempts and the trouble getting out, they took to it like a duck takes to water, in fact they seem to think it smart to out smart the other birds in getting to this particular station.

While we do nothing to drive the sparrows away, it is true that they are somewhat of a nuisance in interfering with the other birds, according to our judgment.

When we first began feeding the song birds, many years ago, the sparrows would not eat the food that we placed out for the other birds, but it didn't take the little rascals long to get wised up to the delicacies that these birds of superior rating were getting.

The sparrow apes the other birds as far as eating goes and when they see a chick-a-dee or a nuthatch or a woodpecker eating, they immedi-



OUR FRIENDS AT THE BREAKFAST TABLE

Dr. Ferdinand Brown, Sioux Falls

Starting about the first of September, when a cold northwest wind reminds us that winter, like prosperity, is just around the corner, up until the warm days in May, when plant and insect life tells us that spring is here, we have guests every morning for breakfast.

These guests consist of Mr. and Mrs. Chick-a-Dee, Mr. and Mrs. Hairy Woodpecker, Mr. and Mrs. Downy Woodpecker, Mr. and Mrs. Nuthatch, and Mr. and Mrs. Brown Creeper.

Some mornings, to add color to the family, we have as honored guests a pair of the most brilliant plumaged, proudest, lovable and most interesting birds in the entire bird family, namely Mr. and Mrs. Cardinal.

For nearly ten years the above birds have been coming to our windows during the winter and spring, to partake of our hospitality in serving them, not only breakfast, but lunch, dinner and short orders, at all times of the day.

To say that these guests are welcome would be stating it mildly, for without them, the day would be almost ruined. We can say frankly that we get more of a thrill, feeding, studying and observing our winged friends, than from any event of the day. To see and almost feel these little Chick-a-dees come right up to the window not two feet from where we are eating breakfast, gives one that kind of an inspiration that one cannot get in any other manner.

To those of you who do not engage in this wonderful pastime, a few words about feeding boxes might be of interest. We like a window with an east front, best. This not only protects the birds from the cold north wind, but it also keeps the cafeteria in better condition. Of course a south exposure will answer just as well.

We have several kinds of feed boxes. A cigar box will do very nicely, if cut down to about one third its original size and we like to have one end about a half inch lower than the other. Tack this on your window sill, and it naturally follows that there should be no storm sash on this window.

We also like a swinging station and this is made by placing a holder such as house plants are suspended from, on one or both side of the window, then suspend your feed tray from this.

It will swing more or less, and we have

learned that the trouble seeking English sparrow will seldom alight on a swinging box. Then too, the birds we feed seem to delight in swinging back and forth while eating.

We also build a long tray, nearly as long as the window sill, and suspend this from the two hangers, and even put partitions in it for the different kinds of food.

This manner of feeding is for the Chick-a-dee, nuthatch, and Cardinal. For the woodpeckers and brown creepers, suet must be placed on nearby trees. The chick-a-dees, however will be guests at all the lunch counters including the suet on the trees, as they will eat most anything, most any time and at most any place.

Another way to feed all these birds, is to hang soap shakers containing suet, nuts, etc., on the limbs of trees or on a line strung from one tree to another. The principle food on the menu for these birds is sun flower seeds as this seems to be the piece de resistance, especially for the chick-a-dees, cardinals and nuthatches tho these three species are also very fond of nuts, especially peanuts and black walnuts.

We grind up the peanuts but the walnuts are broken in a few pieces only and placed in the boxes, the birds seeming to take delight in picking the meat out of them.

We like to experiment in feeding our birds. When the weather is warm enough, we leave the window that has the feeding station open and often place a few seeds just inside. Very often a chick-a-dee will come right into the room.

Another experiment we have tried which proved interesting, early in the fall we have a feed station in the window of a north exposure and when the first cold snap came we placed the storm sash on this window, leaving it pushed out from the bottom.

We were anxious to see if the little chick-a-dee would find its way under the storm sash.

Sure enough, after the first few attempts and the trouble getting out, they took to it like a duck takes to water, in fact they seem to think it smart to out smart the other birds in getting to this particular station.

While we do nothing to drive the sparrows away, it is true that they are somewhat of a nuisance in interfering with the other birds, according to our judgment.

When we first began feeding the song birds, many years ago, the sparrows would not eat the food that we placed out for the other birds, but it didn't take the little rascals long to get wised up to the delicacies that these birds of superior rating were getting.

The sparrow apes the other birds as far as eating goes and when they see a chick-a-dee or a nuthatch or a woodpecker eating, they immedi-



ately flock around the place, like flies going to a garbage can.

They will take the sunflower seeds away with them, but we are unable to determine whether or not they crack and eat the nuts. For a long time the sparrows in our yard turned up their noses at the suet, but now they eat their daily supply just like the others and like it.

The sparrows will drive the chick-a-dees away, but the nuthatches and woodpeckers will not be driven away and very often take a poke at a sparrow if he gets too close or butts in too much when these birds are feeding.

Did you ever see a dog carry a bone back in the yard somewhere and bury it for a future meal? Did you know that certain birds will do the same things? It is a fact and probably this stunt is confined to the winter birds, as the summer residents can always find plenty to eat without storing any away for emergencies.

Just the other day, we observed a chick-a-dee fly in between the storm window, which was pushed out at the bottom, and the regular window, and as there were no feed boxes on this particular window we were at a loss to know what this little bunch of feathers was up to.

It didn't take long to find out; she had a piece of suet in her bill and, believe it or not, she hid it in a crack in the putty on the window pane. We have seen the downy woodpecker perform this same stunt, only he used the bark on a tree to bury his piece of suet in.

Can you think of anything more pleasing, can you think of a better way to start the day off, can you think of any better way to get a good inspiration for the day's work than to have these beautiful birds at your window on a cold winter morning, enjoying breakfast with you, saying good morning to you as it were, and showing their gratitude for being your guest at the breakfast table? If you haven't tried it, do so at once and you too will get a great thrill out of it.

Often we do not place the feed in the boxes at night as we want to be sure that our friends will be good and hungry when we eat breakfast.

And are the chick-a-dees mad when they come at daylight and find empty plates? They will set in the trees near our bedroom windows and scold to beat the band.

For several years we have had the same pair of cardinals—that is we feel sure they are the same pair.

When they first came, some five years ago, we got the thrill of our bird life. They are the last to come to the party, usually after the first real snow storm.

We think they are the most important birds that we know of and they are seemingly unconcerned about what is going on around them, en-

tirely different from the busy, wide awake, fussy little chick-a-dee.

While rather shy when one approaches them, they will come to the window feeding station and eat sunflower seeds for several minutes at a time, but one must remain still, if in the room and not approach too near the window. The female of this species is more friendly than the male, we observe, the latter is politeness personified, truly a great and most considerate husband.

They take turns feeding, and while the one is eating, the mate will sit in a tree and not move a feather, being real champion tree sitters. Can you imagine a prettier picture than seeing a riot of red color come darting by the window on a beautiful winter morning, snow all over the ground, trees laden with nature's frost, and suddenly alight in a tree some twenty feet away, looking at you, greeting you, if you please, and saying "good morning, Mister, is breakfast ready?"

The riot of color is the cardinal and he is the autocrat, of the breakfast table.

We are anxiously awaiting, at this writing, Dec. 6th, to hear from our cardinal, the female, to see if she found another mate, for last spring, when cleaning the yard, we found the remains of the male bird under the grape vines. Of course we were grieved and at a loss to know how his death occurred. The best guess is, a cat though birds do not live forever anymore than do we humans and every year, a certain number do not return to us.

What would life be without the birds? It would be impossible, of course. What is life? Do you see life, when you go to the country? Do you think things out and do you make observations along the highways and by-ways of life?

What is life? Life to us is seeing—seeing things—seeing the things in the great out of doors, the birds, the flowers, the animals, and to know,

"Of the wild bee's morning chase
Of the wild flower's time and place.
Flight of fowl, and habitude
Of the tenants of the wood.
How the tortoise bears his shell,
How the woodchuck digs his cell,
And the ground mole sinks his well.
How the robin feeds her young
How the oriole's nest is hung."

Editor's Note: To relieve my own, as well as our reader's suspense, we called up Dr. Brown and learned that the cardinal did not return this year. Evidently their matrimonial bureau is inefficient.