

# Minnesota LANDSCAPE ARBORETUM

VOLUME 2, NO. 5

## NEWS

WINTER 1982

### DIRECTOR'S MESSAGE

One year ago we were facing the threat of reduced operating funds for 1982. Subsequent events, a reduction in Extension funding and mounting tea room deficits, became real problems at an inopportune time. In addition, completing the Terrace and Rose Garden placed a heavy demand on our permanent grounds staff and a seasonal work force that was reduced by 50 percent compared to previous years. I'm happy to say that through the cooperative efforts of the arboretum staff and a great increase in volunteer assistance we successfully completed the Rose and Terrace Gardens and at the same time attained an acceptable level of maintenance in other plantings.

The interrelationship of our various sources of funds made the increasing tea room deficits a part of the planting and plant maintenance problems that we faced. Through the leadership of Mary Mueller, tea room manager, and the cooperation of her staff, many changes were made that resulted in showing a net profit over the past six months. Again, it was volunteers that helped make the difference. We're grateful to the Arboretum Auxiliary for recruiting volunteers for the tea room

as well as to the volunteers for their part in assuring the continued operation of the tea room on a year-round basis.

I am more optimistic than ever that we can successfully complete the implementation of our new Master Plan in the next two years. The success of our fund raising and the cooperation between staff and volunteers assure the attainment of our goals.

We are currently in the midst of construction for the new Perennial Garden. This garden is being made possible by Mr. and Mrs. John Driscoll of St. Paul and will provide space for a comprehensive collection of perennials in a landscape setting that includes an overlook and a pool. Situated just beyond the Terrace and on axis with the Rose Garden, this new development will combine the best in landscape design with the educational value of a labeled collection of perennials.

Linda Sanford, formerly assistant extension specialist and original editor of "Minnesota Landscape Arboretum News," recently assumed her new duties as director of the children's education program at the Missouri Botanical Garden in St. Louis, Missouri. We wish her well in her new position at this most prestigious institution.

— Francis de Vos

### NEWS FROM THE ARBORETUM

The \$1.3 million Arboretum Growth Campaign has surpassed \$900,000. Donations from generous individuals, foundations, and corporations have been directed to the development of a Master Plan whereby a nucleus of plant collections and gardens of interest to the public will be displayed on approximately 50 of the arboretum's 675 acres. The gardens that have been financed include the Terrace, the Perennial and Herb gardens, and the Rose Garden which officially opened in early September.

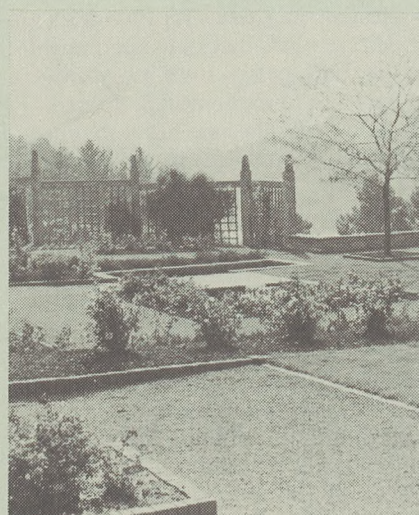
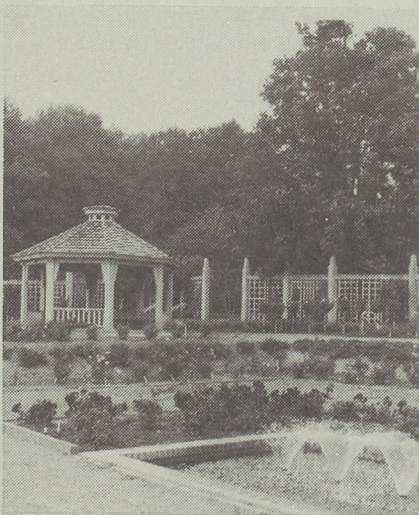
In addition, five of the eight distinctive gardens in the Home Landscape Center have been subscribed. These gardens, scaled to backyard dimensions, will display the arboretum's work with trees, shrubs, annuals, and perennials and will feature lighting, fountains, and the use of stone, brick, and wood to enhance home landscaping.

A ground breaking ceremony took place in August for the Learning Center for Gardening. This center will provide an opportunity for children and adults to participate and interact in active garden programs all year round.

A reception center and a new pathway system, designed to be aesthetically pleasing and easily negotiable for handicapped and senior citizens, will complete the Master Plan.

Come visit and watch the arboretum grow.

— Mary McNeely  
Development Officer

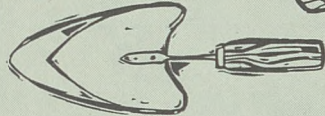


### ARTIST'S NOTE

The arboretum will have an exhibition of fine botanical art on March 12 - March 27. One of the criteria for entries is that the art be botanically correct. For additional information and registration forms contact Mervin Eisel, 443-2460.



## TIMELY GARDEN TIPS



Although most gardening has been completed for the season by early November, there are a few things a gardener may do for the coming year. In the vegetable and flower garden, a good cleanup of old plant debris will go a long way toward controlling some insect and disease problems that may occur next year. Many disease organisms and insects overwinter in garden debris

and cleanup in the fall will eliminate their habitat. Composting is a good method to recycle plant debris. Do not compost plants with obvious disease problems. Iris, for example, should have all dead leaves removed from the garden as the iris borer, a serious pest, overwinters on old foliage in the egg stage.

Mulching is another activity that should be taken care of. Strawberries should be mulched with clean straw before the temperature drops below 20°F. Put on 2-3 inches of mulch after a few frosts have hardened the plants but before a severe freeze. Certain perennials such as peonies, lilies, and chrysanthemums also benefit from winter mulching. Newly planted bulbs should also be protected during their first winter in order to allow more root development before the soil freezes.

Spring-flowering bulbs should be

started now for winter forcing. Bulbs planted now will be ready for forcing in mid-January. Most bulbs need a cold treatment unless precooled bulbs are purchased. Place the bulbs in a shallow pot. Barely cover them with a good soil mixture and then water thoroughly. Leave them in a cool place (40°F) for about 10 weeks.

— Mike Zins  
Area Extension  
Horticulturist



## A TREE — ESPECIALLY FOR WINTER

Many trees are most spectacular at some period during the growing season. The Amur cherry, *Prunus maacki*, presents its most attractive show during the winter. After leaves have fallen, the attractive bronze-colored bark becomes conspicuous.

The Amur cherry is native to E. Asia near the Amur River. It is also found in eastern Siberia and in China. I've seen it grow in rugged hilly areas southwest of Karbarvsk in Russia with China visible in the distance. In the same city I've seen the Amur cherry used extensively as boulevard trees. Since I was there in mid-July, the trunks were not conspicuous as the branches were close to the ground and the foliage was dense. The long rows of trees on both sides of the street seemed quite uniform despite the fact they were probably started from seed as the Russians do very little vegetative propagation of landscape trees by grafting or budding.

The white flowers of the Amur Cherry are borne in long racemes similar to the native black cherry. Although flowers are produced in abundance, the tree is not especially showy. In mid-summer, quarter-inch fruits follow the flowers. As the fruits mature and turn black they are quickly eaten by the birds.

During the growing season, the leaves are a dark rich green. They remain that way until fall when they turn a clear



yellow. The bark often has a smooth metallic sheen to it, while on some trees it is exfoliating. The bark color can vary. Although the bark on most trees has a good bronze color and is glossy, the bark on others is distinctly greenish and dull. When purchasing an Amur cherry tree, it may be preferable to select a young tree with enough size to indicate what characteristics it might possess. Fortunately, since it is possible for nurseries to root cuttings of this tree, eventually they are likely to propagate those with the best bark qualities.

Many gardeners are excited about the Amur cherry tree. Like other cherries they should be grown in full sunlight and a well-drained soil. The tree grows quite fast. The oldest tree in the arboretum is about twenty years old and still growing well. For some inexplicable reason some of the trees at the North Central Experiment Station at Grand Rapids have been short lived, which is not uncommon for many of

the cherries. Therefore, it should be realized that this tree could be part of a landscape planting for only a short time.

I feel the Amur cherry tree is best used in the private area of the landscape where it can be viewed from indoors so its warm glow will add interest to the winter landscape.

— Mervin C. Eisel  
Extension Horticulturist

## ADOPT-A-GARDEN

Gardener Mike Heger reports that 15 volunteers were active in the new adopt-a-garden program this season. Through the summer and fall they contributed over 525 hours of their time. Their efforts are much appreciated, making it possible to maintain many areas properly despite cut-backs in the grounds maintenance budget.



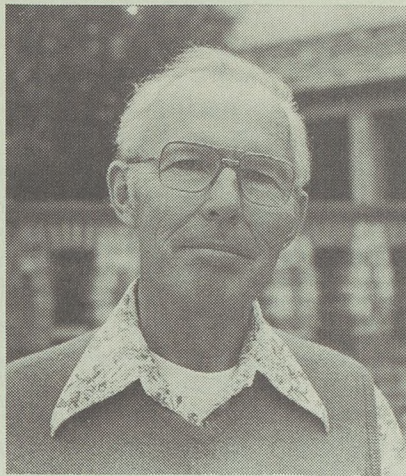
Fall Festival Pumpkin Carving

## STAFF PROFILE

Ken Vogel experiences a great deal of satisfaction as he views some of the tall, strong trees he helped plant when he started at the arboretum fourteen years ago. In his present position as research plot coordinator, Ken spends a major share of his time recording and maintaining information on the arboretum plant collection. Although he maintains records on many arboretum plants, he is particularly interested in woody plants, especially the newer cultivars. His records contain important information on such characteristics as the winter hardiness of a plant; its susceptibility to disease; whether it is a good flowering or fruit bearing plant; its fall color; and its size at maturity. Besides the records on plant characteristics, he also maintains a complete inventory of arboretum plants. This is no small task since there are approximately 5,000 different species, cultivars, and selections at the arboretum. One of his current projects is to computerize all this data for easier accessibility and better storage. Ken believes an important part of his job is to make this information available to the public. Often visitors see a plant on the arboretum grounds or hear of a plant and would like to know if it has been grown here successfully. Ken is anxious to share any of the information he has collected with visitors.

Ken is also involved in the seed exchange program with other arboreta and botanical gardens and universities in the United States and around the world. Each year he prepares a list of seeds available from the arboretum and sends it to those participating in the exchange. As a result, he receives seed lists from other institutions and pays special attention to those located at the same latitude as Minnesota. North Korea, China, and Russia have proven to be important sources of new plants because of their similarity in climate and other growing conditions. If a plant is selected for trial, Ken's recordkeeping begins as soon as the seed is planted. It is in this way he plays a role in a process that may eventually result in a new or a better plant introduced into the Minnesota landscape.

Ken has always been interested in plants and gardening. He received a degree from the University of Minnesota with a major in biology and a minor in botany and worked in the nursery industry approximately fourteen years

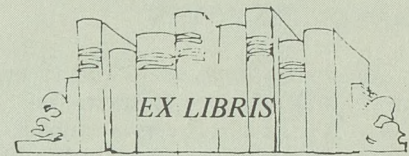


before joining the arboretum as landscape maintenance supervisor. Ken and his wife, Penny, are active in many organizations. He is currently vice-president and president-elect of the Minnesota Dahlia Society and a member of the Minnesota Rock Garden Society. Ken recently joined the Minnetonka Camera Club; he hopes to improve his close-up techniques and apply them to his interest in nature photography.

When he isn't collecting plant data, Ken's other responsibilities include identifying and labeling plants on the grounds. He also provides assistance to research projects, leads an occasional tour, teaches several arboretum classes, and helps with the sugarbush program every spring.

What does Ken see for the arboretum in the future? "The arboretum will continue to become increasingly more important to the state in both the areas of horticultural research and education." Ken is one staff member helping the arboretum do just that.

— Kathy Brown  
Assistant Administrator



Extension horticulturists advise gardeners to plan ahead for their next year's garden. Winter is an excellent time to make those plans. There are a number of books at the library which go beyond the usual landscape design manual by accentuating a single design element.

For example, *The Complete Book of Edible Landscaping* by Rosalind Creasy introduces "foodscaping" as a practical approach to garden planning. The author, a professional landscape designer, shows how to create a beautiful well-planned landscape with the use of edible plants. Some of the plants mentioned cannot be grown in the Upper Midwest. Check carefully for the growing zone.

Another book, *Rosemary Verey's The Scented Garden*, advances the sense of smell as a desirable planning element. The author describes plants for their fragrance and offers advice on growing and using them. Mrs. Verey is a well-known British author and gardener with an extensive library of antique herbals and gardening books. Her material on the planning of puzzles and patterns for an herb garden is most informative.

If you are confronted with a shady garden, *What Can I Grow in the Shade?* by Suzanne Warner Pierot will be an inspiration. The author writes about those flowers, ground covers, shrubs, vines, and bulbs which thrive in the shade. She also includes a list of shade-loving plants arranged by geographic regions.

*The Prairie Garden* by J. Robert Smith does a good job on selling the idea of landscaping with prairie plants which the Wisconsin author considers the toughest of all ornamentals. However, he warns that cultivating a prairie landscape may take time, a minimum of three or four years to establish. He includes instructions for planning and site preparation. You'll find helpful a guide to the forbs which lists height, color, flowering time, seed collection date, seed treatment, propagation, and companion plants.

Books make gardening more fun!

— June Rogier, librarian  
Andersen Horticultural  
Library

## HARDINESS ZONES

Minnesota winters can be difficult on all of its residents. People can stay inside, add a few extra layers of clothing, or avoid the cold by going south. The resident trees and shrubs are not so lucky. They have to stay outdoors and face the elements, and since we don't always use well-adapted plants in our landscapes, winter injury often results.

Winter injury comes in many forms. There are the purely physical kinds, breakage and abrasion. In addition, there are those due to temperature, sunscald, frost cracking, winter burn, and dieback. Breakage of limbs is the result of an excessive accumulation of heavy snow or ice at a time when the wood is frozen and brittle. Abrasion is the result of wind-driven ice crystals and is a problem more often occurring in arctic and alpine areas.

Sunscald and frost cracking result from the warming effect of late winter sun on smooth, thin-barked trees and then the refreezing that occurs when the sunlight is blocked by clouds, buildings, or other obstructions. Winter burn (browning) of evergreens also is due to bright warm sunlight and the very dry air which encourages transpiration from the needles of conifers at a time when the ground water, roots, and trunk are frozen (thus preventing the replacement of water lost from the needles). Dieback is the result of temperatures colder than the plant can tolerate. Plants which die back every winter are not considered hardy. What is it that makes some plants hardy and others not? This is not completely understood yet, but as autumn approaches, woody plants sense the shortening days and prepare their defenses by slowing down the machinery of life.

Protection against these various types of winter injury all involve ameliorating climate extremes: gently shaking snow from branches; shielding plants from abrasive winds; painting, wrapping, or shading tree trunks; watering evergreens through the growing season; and covering tender shrubs.

The best way to protect against winter injury — and yourself from extra work in the fall and spring — is to only plant trees and shrubs that are hardy. How can you tell which plants are hardy? Although experimentation is one way to find out, many people rely on zone ratings. These ratings have been assigned to plants by experienced horticulturists and are meant to indicate the

coldest area that a plant can be expected to survive. Such zone ratings can be found in such standard references as *Hortus*<sup>1</sup> and *Rehders Manual*.<sup>2</sup> However, these two references use different zone maps. So, a Zone 4 plant can also be a Zone 5 plant. Other complications should be noted. One is that many plants' natural ranges extend across several zones. For example, the Red Maples, *Acer rubrum*, ranges from Newfoundland to Florida, and west to Minnesota, Iowa, Oklahoma, and Texas. Those from Florida are not hardy here. Yet only one zone rating is given per species. So, not every plant of a Zone 3 species, for instance, can survive in Zone 3.

Another complication is the fact that the zone maps are based only on average midwinter minimum temperature. The humidity as well as the temperature of the air affect winter survival. Some plants can survive in the coastal and humid areas of a zone and not — without cover — in the dry inland portion. So a Zone 3, broad-leaved evergreen (such as *Rhododendron maximum* or Rosebay rhododendron), may not be hardy in drier parts of Zone 4.

Another problem with the zone ratings is that many of the published references seem to be quite conservative — even to the point of underrating

many of our native trees and shrubs. Even many of the cultivated, introduced woody ornamentals at the Landscape Arboretum exceed their current hardiness ratings. As part of my master's degree, I undertook a survey of the woody plant collection to compare their performance here with the published ratings of Rehder. Of 559 species which he rated and which have survived at least five winters, 5 were rated as being hardy in Zone 1; 93 were rated for Zone 2; 114 for Zone 3; 181 for Zone 4; and 153 for Zone 5. The surprising thing is that the arboretum is located in his Zone 3.

So, although zone ratings can certainly be used as reference points, they are not infallible. Indeed, horticulturist, Dr. Leon Snyder, director emeritus of the arboretum and author of *Trees and Shrubs for Northern Gardens*, has taken experience rather than standard references as his guide and given his own ratings to many woody ornamentals.

— John Vogt Masengarb  
graduate student  
Horticulture

<sup>1</sup>*Hortus Third*, Bailey Hortorium, Macmillan, 1976.

<sup>2</sup>*Manual of Cultivated Trees and Shrubs*, Alfred Rehder, 1940, 2nd Ed.

## NEWS FROM THE ARBORETUM TEA ROOM

The following recipe is provided by Erna Bachtold of the arboretum tea room staff. Mrs. Bachtold is of Swedish descent and will prepare these delicious cookies, along with many other delightful sweets for the Holiday Open House December 11 and 12.

### SANDBAKELSE

Finely grate:

- 1/3 c. blanched almonds
- 4 unblanched almonds

Mix in thoroughly:

- 7/8 c. soft butter (1 c. minus 2 tbsp.)
- 3/4 c. sugar
- 1 small egg white, unbeaten
- 1 tsp. vanilla
- 1 tsp. almond extract

Stir in:

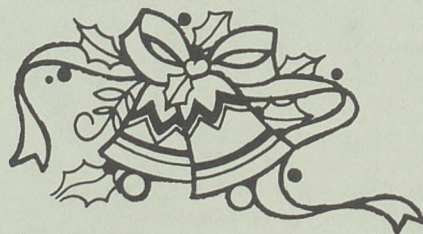
- 1 3/4 c. flour

Chill dough. Press dough into Sandbakelse molds to coat inside.\* Place on

ungreased baking sheet. Bake until very delicately browned. Tap molds on table to loosen cookies and turn out of molds. Bake at 350°F for 12 to 15 minutes. Makes approximately 3 dozen cookies.

\*Molds are available at most department stores and specialty cookware shops.

The tea room staff would like to thank all of its volunteers for their excellent help over the past several months. These dedicated volunteers have made it possible for the tea room to remain open over the winter months. Thank you, volunteers!



## A HOLIDAY FLOWER SHOW

A featured part of "Holidays at the Arboretum" will be the 1982 Holiday Flower Show. Coordinator Virginia Borg invites all to come enjoy the show December 10 - January 3 during regular building hours. Please review the schedule below and consider sharing your own ideas and artistry at the arboretum this Yuletide season.

Please call the arboretum office (443-2460) by December 6th if you wish to participate, indicating which category or categories you will enter. Entries must be delivered by 2 P.M. Friday, December 10th and will remain on display until January 3.

Due to fire regulations all cut greens (except outdoor wreaths) must have stems immersed in water or some moisture holding material. The arboretum will assume responsibility for keeping containers filled.

1. Mantle piece. "As We Dream By the Fire." These should feature brass candlestick(s), not to exceed 12" deep and 30" long.

Number  
Needed

3

2. Hanging door swag. "Deck the Halls." These should feature any berried material, using cones or dried or preserved materials. No cut greens.

4

3. Fresh flower arrange-

ment. "A Holiday Melody." Use a musical instrument as an accessory. For the Holiday Open House only. (December 11-12).

4

4. Outdoor evergreen wreath. "Wintertime Welcome?" These should feature red ribbon and be visible from both sides. 24" 36"

10

2

5. Traditional entry arrangement. "The Glow of Christmas." Use a candle(s).

6

6. Mobile. "Festive Dance." 7. Wrapped package. "Santa's Secret." For children 5-13. See special section for more information.

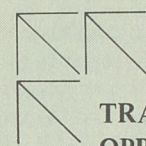
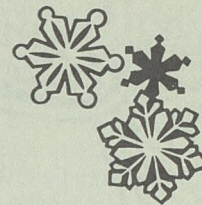
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8. Tree Ornament. "A Gift from Nature." A handmade tree ornament; use natural materials.

## HARMONIA MUNDI

On Saturday, December 4 at 2:30 P.M., Harmonia Mundi returns to the auditorium at the arboretum. Those who have attended their concerts in previous years remember the pleasant musical interlude offered by this double woodwind quintet (pairs of flutes, oboes, clarinets, horns and bassoons).

This is an event for your whole family. Come join us at 2:30 Saturday, December 4 for a free concert.



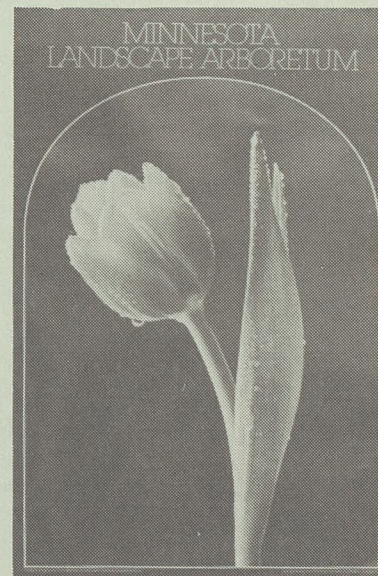
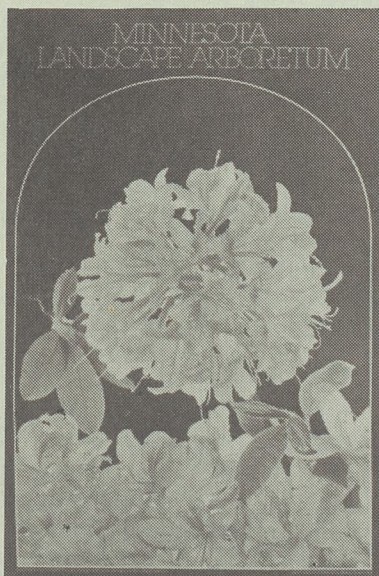
## TRAVEL OPPORTUNITIES

*Royal Caribbean "Sun Viking" Cruise, Feb. 2-13, 1983.* We have negotiated a discount on this cruise for arboretum members. Ports of call include St. Thomas, Venezuela, Curacao, Jamaica, and Haiti on one of the most luxurious ships in the Caribbean. This is truly an outstanding value, but space is limited.

*South Pacific, April 7-May 1, 1983.* Fiji, Australia, and New Zealand are featured on this exciting three-week tour "down under." We will see outstanding scenery, visit the Sydney Opera House, explore the glowworm caves, cruise Milford Sound, and feature time with the people who live in this area. Space is filling rapidly and group size is limited.

For information on these trips or on future trips contact:

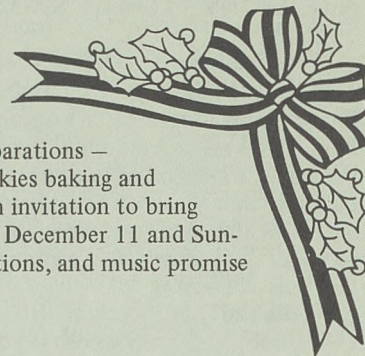
Ruth Wirtz and Staff  
Travel Innovations, Inc.  
13911 Ridgedale Drive  
Suite 249  
Minnetonka, MN 55343  
(612) 546-1131



These attractive, new arboretum posters are available in the gift shop. L to R, Northern Lights azalea, tulip, and lady's slipper.



## HOLIDAYS AT THE ARBORETUM



As the holiday season approaches, the arboretum is humming with preparations – the fresh fragrance of balsam boughs is in the air as well as the aroma of cookies baking and spicy pomanders drying. To our members and the community we extend a warm invitation to bring family and friends and to come enjoy our annual Holiday Open House on Saturday, December 11 and Sunday, December 12 from 11 A.M. to 4:30 P.M. Decorations, special foods, demonstrations, and music promise to make this year's celebration a special one for all.

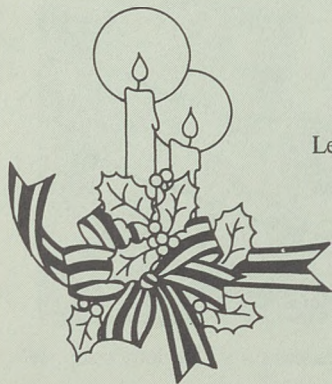
### A FESTIVAL OF TREES

The auditorium again will be filled with trees, large and small, displaying handcrafted decorations of all kinds. A highlight of the occasion will be a balsam fir brought from the North Woods by staff member Merv Eisel. We plan to decorate it with season's greetings cards sent by our members. The members' tree will stand center-stage, in recognition of our appreciation for the support you provide to the arboretum, so we invite you to send us a card (handmade or otherwise). Please send us your card by December 10th!

Favorite trees from last year, such as the cornhusk tree, the spice tree, and the wood tree, will be joined by several new trees and new ideas with a multitude of hand-crafted decorations to admire and enjoy.

### GIFTS GALORE

At 2:30 P.M. on Saturday and Sunday we will have a drawing in the lobby for a number of holiday decorations. Be sure to drop your name in the box, and you may win a balsam wreath, a plate of home-baked cookies from the tea room, a box of spicy tree ornaments, or a pot of paperwhite narcissus or other holiday items. You must be present to win.



### SANTA'S SECRET

Hey kids, will you help us out? A Christmas tree looks a little lonely without a package beneath it, so we are holding a contest to remedy that. Any child between five and thirteen may enter a decorated package. Find an empty box of any size up to 24" x 24." You must wrap, paint, or otherwise decorate your box yourself and use at least one thing that comes from a plant to do so. Make your own wrapping paper with leaf rubbings, potato prints, or pressed flowers. Use cones, pods, seeds, or spices to decorate the box. Most of all, use your imagination.



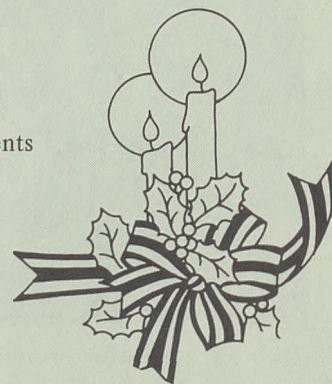
The entries will be displayed under the members' tree in the arboretum auditorium. They will be judged by age classes. Ribbons and holiday items will be awarded to the top entries in each age class on Saturday, December 11 at 1:30 P.M.

Bring or mail your entry to the Andersen Horticultural Library before 4:30 P.M. on Thursday, December 9. Include your name, age, address, and telephone number. Winners will be notified by phone. Packages must be picked up by January 4th.

### DEMONSTRATIONS

Learn how to create many of the handmade decorations and ornaments on display and to identify and care for the plants of the season at demonstrations held throughout the Holiday Open House.

Demonstrations on wood burning, corn husk flowers, wheat weaving, spicy creations, cone wreaths, kissing balls, table centerpieces, and the greens of Christmas will be featured this year.



### FINE HOLIDAY EATING

Tea room manager, Mary Mueller, promises a special selection of traditional Scandinavian foods for your enjoyment in this year of Scandinavia Today. *Arter med flask* (yellow pea soup) and *Gronsakssoppa* (vegetable soup) will be served as well as Swedish meatballs and for dessert, *Fruksoppa* (fruit soup), and an assortment of freshly baked Scandinavian cookies. Mary reports that assistant Erna Bach-told's Swedish background has been invaluable in developing an authentic Scandinavian menu to serve during the Open House.

### LOOKING FOR A SPECIAL GIFT?

Try shopping at the arboretum gift shop. Many new items are available this year. How about Dr. Leon Snyder's new question and answer book *How Does Your Garden Grow?*, or one of the beautiful posters by Cy De Cosse of the lady's slipper, Northern Lights azalea, or tulip. The gift shop always stocks an exciting collection of Frank Albrecht etchings, along with many jewelry items, music boxes, candles, and other excellent holiday gift ideas. Also, be sure to check out the full line of Christmas ornaments. Gift wrapping is available.

## LEGENDS OF OUR CHRISTMAS PLANTS

Our evergreen plants — holly, mistletoe, fir, juniper, and others — play a fragrant part in our Yuletide celebrations each year. However, the tradition of decorating the home with greens in midwinter is even older than Christmas itself. Mistletoe, holly, and other greens were used by the Druids, an ancient religious cult in Britain, Gaul, and Ireland in their celebrations and fertility rites at the time of the winter solstice. In the fourth century, when the “Mass for Christ” was first declared a public festival, church leaders banned holly wreaths and mistletoe because of their pagan associations. Eventually missionaries found greater success by adapting old customs to “the praise of God” rather than trying to abolish them.

As a result, our holiday traditions are a fusing of ancient Roman pageantry, Druid traditions, and Christian beliefs. Many of the customs we follow — the yule log, the holly wreath, mistletoe and the kissing ball, and the special use of herbs during Christmas — originated centuries ago and have been shared by many peoples since.

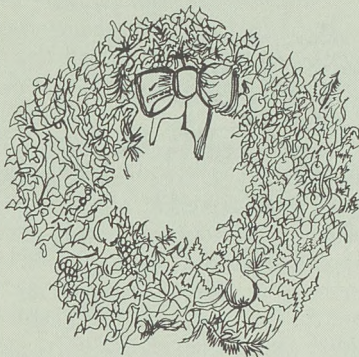
The plants of Christmas offer a wealth of beauty and delight. This year renew some of these age-old traditions and use them to make your home a warm and welcoming place.

### Rosemary and Other Herbs of Christmas

Sadly, rosemary is hardly known as a Christmas plant today despite its wonderful piney scent and its resemblance to a small Christmas tree. From the fourteenth to the nineteenth century it was a prized decoration, with boughs cut and hung throughout the house and a garland woven for the boar's head served at Christmas dinner. One legend claims that it was named rosemary because it was Mary's rose, although the true origin of the word is *ros marinus*, Latin for “dew of the sea.” Another legend connects it with the Virgin Mary as well — Mary, having washed out the tiny garments of the Christ-child and her own cloak, hung them on a nearby rosemary bush to dry. Returning, she found them warmed by a golden sunbeam and the white flowers tinged with blue from the heavenly blue of her robe.

Rosemary may be grown as a houseplant in Minnesota. Placed outside for

the summer in its pot and brought in each fall, rosemary takes on an attractive tree-like shape as it ages. It often blooms in late fall, covered with tiny, pale blue blossoms during the Christmas season. Tiny bells and bows may be used to decorate it for your kitchen or dining room.



### Mistletoe and the Kissing Ball

The *kissing ball* or *kissing bunch* is a ball of evergreens, including mistletoe, hung from the ceiling, in the doorway, or over a window. In sixteenth century Elizabethan times, the kissing ball was a center of festivity. Later on, the Victorian kissing ball was made from holly sprigs stuck into a scrubbed potato and sometimes decorated with small apples, candles, or tiny gifts.

Mistletoe is a plant with a fascinating natural history and a wealth of lore associated with it. It is parasitic, deriving all its nourishment from the host tree on which it grows. To the Druids, mistletoe was a golden herb. Robed in white, they cut it with a golden sickle and caught it in a white cloth before it touched the ground. As a symbol of purity and strength, it was hung in homes to bring happiness and peace, to exorcise witches and demons and to protect people from fits, tremors, and poisons. Today it is most popular in America, England, and Austria.

A kissing ball may be made on a styrofoam ball, or if you wish it to last longer, on a potato or a ball of sphagnum moss about softball size. The potato will supply some moisture to the greens, but a moss ball will last longer if it is kept watered. Some people keep a fresh green kissing ball until March or April by watering it regularly and hanging it in a bright location.

Wrap a ball of moss with fishline or coated thin wire to hold the shape together and attach a wire loop to hang

it. Use cuttings of fresh greens — ivy, yew, pine, boxwood and others — about 3 inches long, and insert into the form. Attach a bright red bow to the top of the kissing ball and the bottom also, if you like. Bits of baby's breath add a delicate touch, or it may be trimmed with mistletoe for tradition's sake. Hang it where it will be used and take it to the sink for a weekly soaking to keep it fresh.

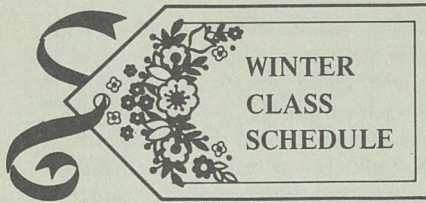
### The Yule Log

The burning of the yule log is a tradition reaching back to the winter-time pagan celebrations of the sun. The Druids worshipped the sun as the god of light and the source of all warmth. During their fire festival at the winter solstice, they would light a ceremonial fire to entreat the sun to return to earth and bring another fruitful summer. The yule log was adopted as part of Christmas around the fifth century. Each family gathered round the hearth to bless their log and pray as it was lit and then kept burning through the twelve days of Christmas. A piece of the log was always saved to light the new yule log the following year.

Your own yule log may be of traditional Scot pine or cedar, or you may wish to use a birch log with its lovely white bark. Attaching evergreens and aromatic herbs to the log hearkens back to Druid times when these fragrant additions to the ceremonial fires were believed to offer protection against evil spirits. Greens and cones may be attached to your log with thin wire. Another way to attach them is to melt paraffin, allow it to cool to lukewarm, and shape it into a soft ball. Press the paraffin onto the log, and press in greens. A sprinkle of frankincense may also be pressed into the warm paraffin. This traditional Christmas incense is the hardened resin droplets collected from a small tree of Arabia and Ethiopia and will add a special fragrance to your holiday fire.

— Sandy Tanck  
Learning Center  
director





Please use the form provided to register. Include your phone number so we may notify you if a class is canceled. If two sessions are offered, be sure to indicate which session you will attend.

**Tuesday, January 18  
GARDENING WITH THE CATALOGS  
Mike Heger**

Do you page through slick, colorful pages and wonder what is a legitimate claim, and what is just an advertising gimmick? Learn about what to look for in the catalogs and which ones are better for various gardening interests. Bring your own catalogs and questions about the order you might be planning.

Mike Heger is a long-time arboretum employee who is a landscape supervisor and has extensive gardening knowledge.

Class will be at 1:00 P.M. and repeated at 7:30 P.M. in classroom 2. Fee for members is \$3, \$6 for non-members.

**Wednesday, January 26  
EVERGREENS FOR THE  
MINNESOTA LANDSCAPE  
Peter Moe**

Evergreens can create the background for other landscape plantings. They are excellent windbreak materials and are effective all year. This class will deal primarily with the large trees: firs, spruces, pines, Douglas fir, hemlock, junipers, and other white cedars. It will include information about culture as well as about adapted species and strains.

Peter Moe is grounds foreman and author of "Arboretum Review on Pines."

Meet in classroom 2 at 7:30 P.M. Fee for members is \$3, \$6 for non-members.

**Saturday, January 29  
NEW INTRODUCTIONS  
Dr. Harold Pellett**

Learn about the Northern Lights azaleas, a new hardy forsythia, hardy "half-high" blueberries, and other introductions adapted to Minnesota

gardens. Dr. Pellett has gleaned much information through his plant breeding projects as director of research at the arboretum. Cultural information will be supplied.

Meet in classroom 2 at 1:30 P.M. Fee for members is \$3, \$6 for non-members.

**Saturday, February 5  
PLANNING THE  
VEGETABLE GARDEN  
Mike Zins**

There are many considerations in planning a productive vegetable garden. We will discuss site, soil, nutritional qualities, uses, cropping systems, intercropping, succession plantings, and varieties. This class will help you improve the harvest of your 1982 garden.

Mike Zins is an extension horticulturist at the arboretum.

Meet in classroom 2 at 1:30 P.M. Fee for members is \$3, \$6 for non-members.

**Wednesday, February 9  
STARTING PLANTS FROM SEED  
Mike Heger**

A sure cure for "cabin fever" is getting a head start on the season by starting your own seedlings. The information provided will be useful for both vegetables and flowers. It will include seed storage, viability, containers, media for starting seedlings, watering, and light setup. Information will also cover some of the problems encountered in growing seedlings and when various kinds of seed should be started.

Class will be at 1:00 P.M. and repeated at 7:30 P.M. in classroom 2. Fee for members is \$3, \$6 for nonmembers.



**Saturday, February 12  
FLOWERS IN THE LANDSCAPE  
Mervin Eisel**

Flowers bring color and fragrance to the landscape, but careful planning and attention to design may help intensify their impact. This class will discuss reasons for growing flowers, situations in which they might be used, and ways to maximize their effect. Both theoretical and practical considerations will be included.

Meet in classroom 2 at 1:30 P.M. Fee for members is \$3, \$6 for non-members.

**Wednesday, February 16  
THE WORLD OF  
AFRICAN VIOLETS  
Margi Carlson**

African violets can provide almost continuous bloom throughout the year. Some newer varieties surpass the older ones in performance. Learn the basics of propagation and potting, about controlling pests, the correct cultural methods, and the different types that are available.

Margi Carlson was in charge of the propagation of African violets at Tonka-wood Greenhouses for seven years.

Class will be in classroom 2 at 1:00 P.M. Fee for members is \$3, \$6 for non-members.

**Saturday, February 19  
WORKSHOP IN BONSAI TECHNIQUE  
WITH TROPICAL PLANTS**

To many people, bonsai is a small deciduous tree grown in a pot on a coffee table year-round. However, although both deciduous trees and many evergreens require a dormant cold period during the winter, several tropical species may be trained using bonsai techniques for indoor display year-round. Learn the basics of pruning and potting. Bring a small scissors and pruning shears. If you have a small bonsai pot, please bring it.

Meet in classroom 2 at 1:30 P.M. Fee is \$3 for members, \$6 for non-members. There will be an additional charge of \$2-\$4 for materials to be purchased at the class. CLASS LIMITED TO 15.

**Saturday, February 19  
TERRARIUM WORKSHOP  
Sandy Tanck**

What makes a terrarium a successful miniature landscape? — careful selection of plants and thoughtful design, including plants and accessories. Try your hand at creating your own terrarium in this workshop. You must bring your own glass or acrylic container, no larger than 12 inches in diameter. Bring along any personal accessories you wish to add.

Sandy Tanck is director of the Learning Center.

Meet at the Learning Center at 10:00 A.M. Fee is \$10 for members, \$13 for nonmembers. Fee includes all plants and soil. CLASS LIMITED TO 15.

**Wednesday, February 23  
GRAFTING WORKSHOP  
David Bedford**

Grafting is a common technique used to propagate many horticultural plants. You will learn about the many different types of grafts which are used for different purposes and at the close of the session you will be able to practice several bench grafts.

David Bedford is the propagator at the University of Minnesota Horticultural Research Center.

Meet in classroom 2 at 7:30 P.M. Fee for members is \$5, \$8 for non-members.



In addition to the classes listed above, the arboretum is offering a series of Sunday afternoon programs this winter. Most of the programs are free. Preregistration is encouraged. All programs begin at 1:30 P.M. Please use the form provided to register. Include your phone number so that we may notify you if a class is canceled.

**Sunday, January 16  
GARDENS OF THE  
CHARLESTON AREA  
Dr. Francis de Vos**

For those who missed the arboretum-sponsored trip, this is your opportunity to see the gardens now. Enjoy a burst of spring with azaleas, magnolias, and other blooms existing in the private and public gardens in and around Charleston. Brookgreen, Middleton Gardens, and Magnolia will be included.

Dr. de Vos is the director of the University of Minnesota Landscape Arboretum.

Meet in classroom 2.

**Sunday, January 30  
OPEN HOUSE AT THE  
LEARNING CENTER**

Bring your family for a tour of this newly completed educational facility. Participate in several planting projects guaranteed to alleviate wintertime blues. Visit the attached teaching greenhouse where you may pet Millie the giraffe and enjoy the fresh smell of a green, growing world.

The Learning Center is located 1/8 mile west of the Margot Picnic Shelters.

**Sunday, February 6  
A TASTE OF THE EXOTIC  
Roberta Sladky**

Ever dreamed you were marooned on a tropical island and had to "go native?" During this class, you will discover some unusual tropical fruits, a little of their natural history, and enjoy an abundance of strange tropical flavors.

Roberta Sladky is the manager of the Botany Department Greenhouses at the University of Minnesota

Meet in the Fireplace Room. Fee is \$1 per person.

**Sunday, February 13  
VISIT THE OLD SOUTH  
IN THE SPRING  
Mervin Eisel**

An armchair tour of the gracious southern gardens of New Orleans. Stops include several old plantation homes, courtyard gardens in the city, and other points of interest to gardeners and travellers alike.

Mervin Eisel is an extension horticulturist and the director of education at the arboretum.

**Sunday, February 20  
ANIMALS OF THE ARBORETUM  
Jim Gilbert**

Many mammals including fox, gophers, and squirrels make the arboretum their home. Learn about these creatures, their habits, and other interesting facts from this outstanding naturalist.

Jim Gilbert is a teacher in the Hopkins School District and a well-known phenologist for Minnesota.

Meet in the auditorium and plan to go outdoors if the weather permits.



**Sunday, February 27  
LONGWOOD GARDENS  
Roberta Sladky**

Roberta Sladky received her degree from the University of Delaware as part of the Longwood Program for horticultural professionals. As the premier horticultural display gardens in the country, Longwood offers outstanding conservatories, topiary gardens, water features, and much more made possible by the Du Ponts. Your slide-illustrated tour may encourage you to plan a visit sometime soon.

Meet in classroom 2.

**CLASS REGISTRATION FORM**

All classes require preregistration and prepayment of fees two working days prior to the class. Class fees will be refunded only if cancellation notice is received two full working days prior to the class. Classes which do not receive ten reservations may be canceled. For classes with no size limit, senior citizens pay member's fees. Make check payable to the Minnesota Arboretum Foundation, and address the envelope to Class Registration.

Name \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_

Phone (day) \_\_\_\_\_

(evenings) \_\_\_\_\_

Arboretum Member  Nonmember

X	COURSE TITLE	FEE
	Gardening with the Catalogs (day)	
	Gardening with the Catalogs (evening)	
	Evergreens for the Minnesota Landscape	
	New Introductions	
	Planning the Vegetable Garden	
	Starting Plants from Seed (day)	
	Starting Plants from Seed (evening)	
	Flowers in the Landscape	
	The World of African Violets	
	Workshop in Bonsai Techniques w/Tropical Plants	
	Terrarium Workshop	
	Grafting Workshop	
	Gardens of the Charleston Area	
	Open House at the Learning Center	
	A Taste of the Exotic	
	Visit the Old South in the Spring	
	Animals of the Arboretum	
	Longwood Gardens	
	<b>TOTAL</b>	

## // ANIMAL DAMAGE TO PLANTS AND HOW TO PROTECT AGAINST IT

So you're expecting an attack on your trees, shrubs, and lawns, and you want to prepare your defenses. What will attack — mammal or bird? From which direction — above or below? Will they come sneaking in by dark of night or brazenly stroll in during broad daylight? Oh, me! Oh, my! What can I do?

Relax, neighbor. You're among friends. Three of every four yards in the Twin Cities area will experience some wildlife-caused damage to plants this year. Of this group of landowners, less than 50% will recognize that damage has occurred. Is this damage a serious problem, or are we "... making a mountain out of a mole-hill" (pun intended)?

Plants being damaged by wildlife is a normal consequence of having wild animals around. This damage becomes defined as a problem only when humans assign a higher value to the plant than to the animal. After all, habitat is composed of food, water, cover, and space. If the animal is to utilize its habitat and survive, some plant material must bear the burden of damage.

Unfortunately, both mammals and birds can cause major amounts of damage to ornamental plant materials. The Upper Midwest is home to nearly 600 species of terrestrial vertebrates. About one-tenth of these are able to do noticeable and significant plant damage either directly or indirectly.

Recognition of plant damage and identification of the particular wildlife species causing the damage are vital first steps to correcting the situation. In most instances (better than 90%), the culprit can be identified by a careful collection of clues and by playing a good game of deductive reasoning. Correcting the situation to prevent further damage is not always possible. Be prepared to accept some plant damage as a consequence of your chosen lifestyle. You are experiencing some of the dynamic forces of ecology.

Of all the birds, woodpeckers as a group do the majority of visible damage. However, the vast majority of damage blamed on woodpeckers is really inappropriately classed as damage. Whether or not landowners recognize and admit it, most of the trees damaged by woodpeckers are trees which are under terminal stress *before* the woodpecker arrives. In reality, the wood-

pecker is interested in the tree only because the tree is dying. In the terminal stress state, trees are invaded by insects which would not survive were the tree vigorous and healthy. Even for nesting purposes, woodpeckers usually use dead or dying trees (snags).

The sapsucker group of woodpeckers are notable exceptions and will drill on healthy trees. This is difficult to control, but where sapsuckers occur in good numbers, refrain from decorating with such trees as mountain ash, cherry, beech, and hickory. Sapsucker damage usually appears as a rectangular patch of small holes (one-eighth to one-fourth inch in diameter) drilled through the bark. The holes will be arranged neatly in rows and columns. You should pad the damaged area with heavy tree wrap. Aluminum foil strips hung on branches may frighten some sapsuckers.

Breeding displays associated with deer often cause severe damage to individual plants as the bucks rub the velvet from their antlers. This activity leaves the shrub or sapling broken with the bark severely shredded.

Debarking of shrubs and trees close to the soil surface is usually caused by meadow mice. Trim all vegetation away from the base of young trees and mow any vegetation between. Keep this mouse-cover less than two inches high and meadow mice will be no problem.

Debarking of trunk or branches of maple, boxelder, and elm usually indicates an overpopulation of gray squirrels. Reduce the squirrel population, but first, consult your local game warden.

The largest portion of mammal damage to plants is the result of feeding activity during which plant materials is removed from stems and leaves. Three control approaches are exclusion, repellents, and population reduction. Exclusion is only practical on small areas and for a limited number of animal species. Repellents are only short-term solutions. They are limited in potential and highly variable in results. Population reduction is most effective if applied in fall or winter when target animals are most susceptible. Check with your area Department of Natural Resources representative before you control population levels.

These printed materials are available from the Agricultural Extension Service, University of Minnesota, St. Paul, Minn.

Protecting Trees from Animal Damage — Forestry #8  
Rabbits and Hares — Natural Resources Wildlife #1  
Moles — Natural Resources Wildlife #2  
Shrews — Natural Resources Wildlife #3  
Tree Squirrels — Natural Resources Wildlife #5  
Pocket Gophers — Natural Resources Wildlife #8  
Snags for Wildlife — Extension Folder 581

— Jim Kitts  
Assistant Professor  
Department of  
Entomology, Fisheries,  
& Wildlife



## THE LEARNING CENTER

On August 10, 1982, a groundbreaking ceremony marked the start of construction for an exciting new educational facility at the arboretum. The Learning Center will house several existing programs including the Children's Garden and the School Greenhouse, and enable staff to offer a growing number of classes for families and adults as well. Projected completion date is late fall.



L. to R.  
Don Knutson of Minneapolis, Marion and Johns Andrus of Wayzata and arboretum director, Francis de Vos break ground for the new Learning Center.

**WELCOME NEW MEMBERS!**

*New members for June, July, and August 1982. Join and enjoy! Here's what you get in return: free admission to the arboretum at all times, notice of all arboretum events, reduced fees for all classes, newsletters keeping members up to date on what's happening at the arboretum plus short articles and gardening notes, preference at the spring plant sale, and arboretum sponsored trips.*

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- Bonnie Abrahams
- Mr. & Mrs. Jerry Ackermann
- Mr. & Mrs. Loren Ahles
- Mr. & Mrs. James Alcott
- Mr. & Mrs. James E. Alvin
- Mr. & Mrs. Charles Anderson
- Charles Anderson
- Mr. & Mrs. John G. Anderson
- Mr. & Mrs. Lowell Anderson
- Mrs. W. Robert Anderson
- Sister Marjorie Axelton
- Mr. & Mrs. Michael Babcock
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- Melissa Hoaglund
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- Velma Johnson
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- Anne Marie Kronick
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- John & Heidi Lampert
- Dr. & Mrs. James Larson
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- Mr. & Mrs. Robert T. Mesenbring
- Mr. & Mrs. Neil R. Messick
- Janet Miller
- Mr. & Mrs. Willard Miller, Jr.
- Mr. & Mrs. Ray Mimnaugh
- Mr. & Mrs. Donald E. Moe
- Mr. & Mrs. Frank W. Moran, Jr.
- Mr. & Mrs. Bill Moreno
- Mount Olivet Home
- Louise Mullan
- Carolyn Munkelwitz
- Mr. & Mrs. F.L. Murray
- Mrs. Frederick Neher
- James D. & Marie Nelson
- Sharon Nelson
- Mr. & Mrs. Curt Noren
- Mr. & Mrs. Paul Ohnesorge
- Mr. & Mrs. Terrance P. O'Leary
- D.L. Olson
- Mr. & Mrs. Stanley M. Olson
- Mr. & Mrs. Paul M. Otten

- Mr. & Mrs. Roger J. Otting
- Mr. & Mrs. Dan Palmer
- Mr. & Mrs. John Paul
- Win Paulson
- Thomas S. Payne
- Diane E. Pederson
- Thomas Penn
- Mary Alice Lee Pesteil
- Lorna Peterson
- Margaret L. Peterson
- Nel Pfannenstern
- Kathleen Pollock
- Ann Poulson
- Queen of Peace Hospital
- Alan Rannow & Ranae Lammle
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- Curt Roberg
- Mr. & Mrs. W.M. Rodeck
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- Nita Rolland & Robert D. Rolland
- Mr. & Mrs. Terry A. Rosen
- Mr. & Mrs. Fred W. Rossbach
- Mr. & Mrs. Paul T. Ruth
- Julie Sanderson
- Richard J. Schieffer & Margaret A. Reinhardt
- Mr. & Mrs. S. Schroeder
- Mr. & Mrs. John F. Schumacher
- Mr. & Mrs. Elliott H. Scott
- Mr. & Mrs. Henry F. Seifert
- Maureen Shadle
- Merle Sherman
- Mr. & Mrs. Robert Greg Shugart
- Jesse Sia
- Mr. & Mrs. Robert W. Siegler
- Mr. & Mrs. Milt Sigel
- Mr. & Mrs. James E. Sjoldal
- Jacqueline H. Smith
- Linda M. Smith
- Mr. Clark W. Southworth
- Rev. Ansgar & Muriel Sovik
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- M. Marie Weld
- Mr. & Mrs. Harold Wetterlin
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- Thelma Wickland
- Jack W. Wicks
- Mr. & Mrs. Vern Wigfield
- Dorothea V. Williams
- Charles E. Witt & Kathleen M. Weidenbach
- Grant Wood
- Kathleen Wost
- Kendrick Wronski
- Dr. & Mrs. Loy Young
- Daniel E. Youngdahl
- Mr. & Mrs. Melvin Zuckman



**CHRISTMAS GIFT SUGGESTION FROM THE MEMBERSHIP OFFICE:**

The arboretum is grateful for contributions from members. Why not consider a gift at this time to help us continue to improve our service to the public and our members? A gift membership form is provided below to use for giving a year-round, lasting present. Call the membership office (443-2460, ext. 40) to check current membership status. New members will receive a special notice with their membership cards acknowledging the giver.

**Minnesota Landscape Arboretum Gift Membership Form**

Please complete this form and send it with your check to: Minnesota Arboretum Foundation, 3675 Arboretum Drive, P.O. Box 39, Chanhassen, MN 55317. Please check the type of membership you wish to give:

- Individual \$15 \_\_\_\_\_
- Family \$25 \_\_\_\_\_
- Contributing \$35 \_\_\_\_\_
- Sustaining \$50 \_\_\_\_\_
- Supporting \$100 \_\_\_\_\_

Send announcement of gift and membership card to:

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Given by:

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_



## LANDSCAPING FOR THE BIRDS

For many years my husband and I have enjoyed watching the birds come to our feeders. To attract them we have planted the kind of trees and shrubs which provide food, cover, and nesting.

These trees and shrubs provide abundant food for birds. Before heading south in the fall, the robins feast on the mountain ash berries. Although this seems to be their favorite, the year I discovered that the red haws from the hawthorn made a delicious jelly the robins finished off every one. Waxwings pay a visit in late winter seeking out the highbush cranberries and return again in spring to dine on apple blossoms. Also in spring, when the catkins are flowering on the birches, pine siskins arrive in great numbers.

The brown thrasher and catbird, along with the robins, eagerly await the first cherries and strawberries. Many times a scolding catbird has confronted me for picking more than my share! One year a paper wasp nest built inconspicuously in a white pine provided a winter's store for resident chickadees. By winter's end nearly all of the nest and its larvae had disappeared. Lucky chickadees.

Trees and shrubs provide cover for protection and nesting. Our front ever-

greens provide winter roosting for a small family of pheasants whom we call George and the girls. The conifers also give robins a safe nesting site in spring before deciduous trees are completely leafed out. The indigo bunting tucks her nest in the raspberry canes. It remains a secret until fall when the old canes are pruned. A few remaining apple trees, old and dying, provide nesting holes for bluebirds.

For information on landscaping a backyard sanctuary, I recommend reading *Trees, Shrubs and Vines for Attracting Birds* by Richard DeGraaf (University of Massachusetts Press, 1979). It gives descriptions of the plants, landscape values, site requirements, and birds attracted. Read this, along with Mervin Eisel's four-page publication, *Woody Plants that Attract Birds*. Written specifically for our area, it is available from your county extension agent or from the Agricultural Extension Service, University of Minnesota, St. Paul, MN.

— June Rogier, librarian  
*Andersen Horticultural Library*

## Minnesota LANDSCAPE ARBORETUM

Vol. 2, No. 5 NEWS Winter 1982

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### MINNESOTA LANDSCAPE ARBORETUM NEWS

is published four times a year by the Minnesota Arboretum Foundation  
3675 Arboretum Drive, Box 39  
Chanhassen, MN 55317, a non-profit organization.

### THE MINNESOTA LANDSCAPE

ARBORETUM is a unit of the Department of Horticultural Science and Landscape Architecture, University of Minnesota.

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Mailed third class postage permit number  
42 from Chanhassen, MN 55317.

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