



Wisconsin Daylily Society, Inc.

December 10, 1999

A not-for-profit organization promoting the enjoyment, awareness, and propagation of the genus *Hemerocallis*

Annual Meeting a Roaring Success!

The 1999 Annual Meeting was the 10th Anniversary of the founding of the Wisconsin Daylily Society, and 60 people showed up to celebrate with a talk by Ted Petit and another by John Peat. The two hybridizers showed slides of their new introductions, and also talked about what they used certain plants to gain in their seedlings. The meal was catered by Queen Anne's Catering. The treasurer's report showed a balance of \$13,678.83 in our checking account, and \$4298.74 in a 6-month CD in the November Board Meeting. The number of people showing up was a new record.

Elections were held for new Board Members, with Stan Duke, Cynthia Henson, and Karen Watson-Newlin all winning reelection, and Rosemary Kleinheinz being elected for a first term.

A Short Note from the Editor by Jean Bawden

As you can see, I have a new program that I'm going to try and use for the newsletter. Hopefully, I will be able to add graphics, photos, and other weird things to the newsletter once again. If you have photos and you want to e-mail them to me, please do. I thank all of you that added some of your favorite daylilies to your renewal form. It's always nice to have more things to fit into little spaces.



Volunteer of the Quarter

There are some people who are not in the limelight, but their presences are extremely important to the organization. These people do the little things that need to get done.....like making cookies for munching after a meeting, decorating tables, saving material for the history of the society, helping someone out with preparing food. We would like to thank Evelyn Thompson for all those time-consuming jobs that she has helped with or done in the past year.



WDS Officers & Board Members

President: Hiram Percy-407 Lincoln St., Verona, WI 53593-1529, 845-9249, parcyj@verona.k12.wi.us (term ends 2000)

Vice-President: Sally Yaeger-5920 Mayhill Drive, Madison, WI 53711, 274-3262 tlyaegs@aol.com (term ends 2000)

Secretary: Rosemary Kleinheinz-104 W. Lakeview, Madison, WI 53716, 221-1933, trklein@itis.com (term ends 2001)

Treasurer: Jean Bawden-4385 Oak Hill Rd., Oregon, WI 53575, 835-8907, bdn7458@mailbag.com (term ends 2000)

Stan Duke & Cynthia Henson-3713 Festival Way, De Forest, WI 53532, 837-6467,

Shduke@facstaff.uw.wi, cahenson@facstaff.uw.wi (terms end 2001)

Linda Ball-W9418 Woodside, Cambridge, WI, 423-4425, plumhill@bminet.com (2000)

Karen Watson-Newlin, 608 Basswood Ave., Verona, WI 53593, 845-9491, watsonnk@verona.k12.wi.us (2000)

Year 2000 Calendar

- Sun. Jan. 9-1pm -Local Hybridizer's Night
- Sun. Feb.13-1pm—Darrell Apps
- Feb. 18-20 - Garden Expo
- Thurs. Mar. 16-7pm-Robert Griesbach
- Sun. April 9- 1pm-Lynn Purse-Using Color
- Thurs. May 18-7pm- Doug Maxwell-Disease in Hems
- June 15-5:30pm -Brown Bag at Ruth Horrall's home
- Sat. July 22-Daylily Show Prep
- Sun. July 23-Daylily Show
- July 30-Picnic
- Aug. 11- Daylily Sale Prep
- Aug. 12-13-Daylily Sale
- Sun. Oct. 15-Annual Mtg.- Norm Baker

Garden Judges!

Just a quick reminder that if you took both clinics at the picnic and intend to become a garden judge, your application is due by December 15th! Betty Hansen, Ruth Horrall, Mary Powell, Dave Butcher, Richard Berling, Doug Maxwell, Martha Maxwell, Eugene Marks, Lloyd Ravet, Judy Ravet, Pat O'Connor are all eligible for the first time, and Bill Powell, Janet Gordon, Jerry Benser, and Caroline Benser renewed their 'judgeships'.



Daylily Ploidy

Ploidy Level in Daylilies

We have all heard of diploid and tetraploid daylilies. What does this mean? These terms refer to the number of sets of homologous chromosomes in the nucleus of cells. Chromosomes are the usually linear formations containing the genetic information that determines an organism's make-up (e.g. structure, metabolism, life cycle, etc.). The genetic information is determined by many individual genes. A gene is a segment of DNA that contains the code for the production of a protein. Most proteins are enzymes with specific functions within an organism (e.g. specific metabolic reactions, production of structural components of an organism, etc.). Each chromosome will usually contain more than 1,000 individual genes, and thus is necessary for numerous functions within an organism.

Higher organisms, such as daylilies and people, contain several sets of homologous chromosomes. Homologous means that they appear similar in structure and their genes code for the same proteins. However, the genetic code for each protein may or may not be exactly the same. All daylilies have eleven sets of homologous chromosomes. Diploid daylilies have two chromosomes in each set; hence they have a total of 22 chromosomes. Daylily species are all dip-

loid except for a few clones of *Hemerocallis fulva* which are triploid (33 chromosomes). When daylilies and humans reproduce sexually they must produce gametes (eggs and pollen or sperm). During the production of gametes the ploidy level is halved. So in the case of a diploid daylily each gamete contains eleven chromosomes. This is a haploid, having half the normal chromosome number. When the egg is fertilized by pollen, the chromosomes from by female and male fuse into the nucleus of the zygote (fertilized egg), producing a diploid. The zygote then divides into numerous diploid cells producing an embryo. If the egg and pollen come from genetically different plants, the chromosomes within the homologous sets will have at least some genes that have slightly different codes for the same protein. The more individual genes that are different in the homologous sets, the more heterosis (hybrid vigor) occurs within the organism. The amount and type of vigor are determined by the particular cross.

The wild diploid daylily species are well adapted in their na-

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tive habitats. Each species seldom produce hybrids with other daylily species in nature. A little more than 100 years now, hybridizers began crossing daylily species, increasing heterosis and genetic variability within individual plants. This, in part, has increased variation in cultivars. In the middle of the 20th century a few hybridizers sought to further increase genetic variability by increasing the ploidy level of the daylily. To accomplish this they treated daylily tissues with a compound called colchicine. Colchicine is derived from the autumn crocus (*Colchicum* sp.) And causes a doubling of ploidy level. With treatment of diploid

loid daylilies with colchicine, tetraploid daylilies are produced. These tetraploids have four chromosomes in each homologous set: hence they have 44 chromosomes.

This not only doubles the amount of DNA in the plant, it has a dramatic effect on plant morphology and plant response to the environment. When the ploidy level doubles, the nucleus of the cell is larger and the cell itself is larger. The cells do not double in size but their size may greatly increase. This gives the tetraploid more substance. Leaves and flowers are larger and thicker. However, in some cases the number of cell layers within tissues may also increase, further increasing substance. This increase in substance has been one of the great appeals of tetraploids to hybridizers. However, there is a dark side to this type of genetic manipulation. The stomates (small pores) on leaves that allow gas exchange required for photosynthesis, respiration, and transpiration also increase in size. This can result in tetraploids transpiring more water than diploids, thus becoming less drought tolerant. Tetraploids would be at a disadvantage in many natural habitats. This might explain why they don't exist in nature. Also, early daylily tetraploids had scapes and other plant parts that had a tendency to split and become disfigured. This



Reminder! Dues are Due!!!!

Just a quick reminder... not only are your WDS dues due, but your AHS dues need to be paid by December 31. Send your AHS dues of \$18 to: Pat Mercer, PO Box 10, Dexter, GA31019.

Send your WDS dues to: Jean Bawden, 4385 Oak Hill Road, Oregon, WI 53575 (\$5 for single, \$7.50 for family, and \$15 for businesses).

Late Lates!

For those of you that are looking for plants to extend the daylily season, here are some daylilies that were blooming in Karen Watson-Newlin's garden on OCTOBER 10th: DRAGON EYE, JOLYNE NICHOLE, SHAMAN, SILOAM JUNE BUG, SUGAR COOKIE, DUKE'S DAUGHTER, and CAMDEN GOLD DOLLAR.

Favorites

Dawn Tubbesing likes Moldovan's things, and mentions OLD KING COLE as being very hardy with a beautiful flower. She also mentioned MOONLIT MASQUERADE for its unusual eye, showy flower, and mass of blooms.

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Daylily Fragrance!

by Nell Lancaster/E-mail Robin

Fragrance is a tough quality on which to gather hard information because it varies so much -- affected by weather, location, time of day, and the scent sensitivity of the gardener. However, there's wide agreement on the sweet, reliable scent of two of the species: the early-season "lemon lily", *Hem. lilioasphodelus* (used to be *H. flava*), and night-blooming *H. citrina*. Many of the cultivars with one of these as parents or grandparents are also fragrant. Among the oldies, *HYPERION* sets a standard for fragrance that few modern daylilies can match; it has *H. citrina* and the slightly less fragrant *H. thunbergii* as grandparents.

There's no getting around the fact that the great majority of heavily scented daylilies are yellow. But there are exceptions [see below]. Three other general categories seem to have more than their share of fragrant daylilies, though these are just broad generalizations: early-blooming small-flowered yellows (the "little yellow varmint"), doubles, and very large-flowered cultivars. The "LYVs" may owe something to lemon lily ancestry; a bonus with these is that many repeat throughout the season (*FORSYTH LEMON DROP*, *LEMON LOLLYPOP*, *SWEET RETURNS*, *YELLOW LOLLIPOP*, *HAPPY RETURNS*, *MAY MAY*).

The probable explanation for the fragrance of many double and large blooms is that daylily scent is in the petals and sepals themselves, so that more and bigger is better. Some examples: *VANILLA FLUFF*, *SILAM DOUBLE CLASSIC*, *RACHAEL MY LOVE*; *HUDSON VALLEY**, *EVENING BELL**, *AUDACITY BOUND**.

A few hybridizers have made fragrance a goal, most notably Lucille Guidry. It's always worth checking out Guidrys for scent when touring a garden, but you do have to kneel down to do it; she also made short scapes a goal. In the search for scent, another place to start is with the winners of the L. Ernest Plouf Consistently Very Fragrant award. I don't know who Mr. Plouf is (was?), but have always thought his name was wonderfully appropriate for the prize -- something like the sound of perfume being sprayed from a bottle <g>. I've grown many of these and sought the others out in display gardens, and my sad conclusion is that many of them are only perceptibly fragrant in ideal conditions (very warm, humid, windless days with many blooms open at once.

Some past winners not already mentioned above include *WILLARD GARDNER*, *TENDER LOVE*, *FROZEN JADE*, *SILAM DOUBLE ROSE*, *IDA MILES*, *SILAM MAM*, *GOLDEN SCROLL*, *CHORUS LINE*, *SMOKY MOUNTAIN AUTUMN*.

So, with the caveat that robin members reporting fragrant cultivars may have ideal conditions and very sensitive noses, here are others that have been cited: [* = tetraploid]

yellow:

LEXINGTON (Claar 1959)
*SISTER SPIDER** (Powell 1983)
*OMEGA SUPREME** (Curt Hanson 1991)
*GREEN FLASH** (Hite 1982)
ADRIAN (Terry 1955)
FRAGRANT LIGHT (Viette 1984)

cream/near white:

SO LOVELY (Lenington 1969)
*RUFFLED DUDE** (Munson 1986)
SOMETIMES MAYBE (Talbot 1990)

pink/rose:

*DYNASTY PINK** (Kirchhoff 1994)
LAKE NORMAN SUNSET (Carpenter 1997)
CHARLIE PIERCE MEMORIAL (Pierce 1987)
*BEST KEPT SECRET** (Kirchhoff 1990)
FENTON LAVENDER MINT (Guillory 1995)
*CHANCE ENCOUNTER** (Stamile 1994)
WOMAN'S WORK (Cratch 1984)
HEATHER PINK (Sikes 1990)
*SILKEN TOUCH** (Stamile 1990)
SILAM KEN HENSON (Henry 1989)

lavender/purple:

*LAVENDER DEAL** (Kirby 1981)
LOLA BRANHAM (Burkey 1991)
PERSIAN PATTERN (Hardy 1966)

melon/peach:

AUTUMN WOOD (Dougherty 1991)
"Betty Beard" (Kennedy, unreg.)
VERNA HICKMAN (Boylan 1982) cream pink
 [don't know if this is dip or tet]

gold:

JEN MELON (Oakes 1987)

orange:

LANGLEY TANGERINE SHERBET (Pam Erikson)

bronze/amber:

FANCIFUL FINERY (Kirchhoff 1984)

UNTAMED GLORY* (Salter 1991)

red:

POINSETTIA LOVE* (Houston 1996)

Lynn Purse and Blending Color in the Garden

Our speaker in April will be Lynn Purse. She has given numerous talks about the use of color to tie gardens together, and the use of foliage to provide interest during all times of the year. If you wonder how to make your garden come together into a whole instead of a cluster of plants, you won't want to miss our April meeting. I asked her to give a synopsis of what she's doing.

ABOUT LYNN PURSE-by Lynn Purse

Trained as a painter and photographer as well as a musician, I apply my artistic training to the art of gardening. I teach classes on garden design and horticulture at the Pittsburgh Civic Garden Center; I also write a column on Color in the Garden for their monthly newsletter. Other publications include the article "Garden Design: Small Shrubs in the Daylily Garden", The Daylily Journal, Spring, 1997 (photographs and text) and photographs for Diana Grenfell's latest book "The Gardener's Guide to Growing Daylilies" (Timber Press) as well an article on daylilies that Grenfell published in the journal of the Royal Horticulture Society.

Co-winner of the first "Our Readers' Gardens" contest, my garden was featured in Flower and Garden magazine's June 1993 issue; more recently my garden was photographed this June by Country Living Gardener magazine for a future issue. I am active in several electronic garden groups on the internet, exchanging ideas and information on an international basis; my garden web page "The Creative Gardener" can be found at <http://guitarweb.music.duq.edu/LPURSE>.

Region 2 Symposium!!!!

Don't forget to sign up for the Region 2 Symposium held Mar. 3-5 in Cleveland Ohio. Send your registration of \$70 to Juli Hyatt, 1617 Sportsman's Club Road, Newark, OH 43055. Registration is limited to 200 people. For hotel registration, call Cleveland South Hilton at 1-216-447-1300. Rates for hotel are \$70 per night, and reservations must be made by February 5, 2000 to get that rate.

(Continued from page 3) Ploidy in Daylilies

was probably due to having increased cell layers that could not be contained by epidermal tissues in various organs.

Recently molecular biologists have been able to produce artificial chromosomes and place them into higher organisms. These chromosomes may be loaded up with genes that do not occur in the target species, drastically altering the morphology, physiology, and other characteristics. Anyone for a daylily that has blue flowers that last two weeks?

Thank You Note— A special thank you to all of you for all the hugs, cards, phone calls, and the special daylily that you gave us in my mom's memory. It means a lot to Don and I to know our WDS family gave us support thru a trying time for us.. You are a special group of people. Don and Phyllis Sanner

**New Board Member-
Rosemary Kleinheinz**

About 4 years ago Tom & I got the urge to make some changes in our yard and hooked up with Steve Lesch. Gardening has turned out to be a great retirement hobby. With all of our new beds, we thought a few daylilies would look nice. Steve told us about WDS and 2 years ago we joined. Then we saw Hiram's garden - and you know the rest!!

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We loved working at the Plant Sale in August. It was a great chance to get to know other WDS members, and get some fabulous bargains be sides!

Now we can't wait to see WINGS OF CHANCE, STRAWBERRY CANDY, RESPIGHI, SMOKY MOUNTAIN AUTUMN, SOUTH SEAS, FRANCIS JOINER, TECHNY SPIDER AND MYNELLE'S STARFISH in bloom next summer. But before that we look forward to seeing our collection of daffodils in bloom and all the new hostas unfurl.

We just completed our first year in the Master Gardener program so now we are supposed to be able to answer any questions about trees, shrubs and turf. Right!!!

Tom finally toted the last of 25 tons of limestone up to finish our new stream, pond and waterfall in November. Now we have to learn all we can about water gardening.

Bring Slides of your Seedlings in January!!!!!!

Calling all you BACKYARD HYBRIDIZERS! The January meeting will give you a chance to show off some of those new babies! We don't care if the slides aren't the greatest..... we don't care if they don't compare with the newest Salters. It will be a night of sharing.....if you only have snapshots, bring those! If you have a goal for your hybridizing.....like lavender spiders, or bitone purples, or ruffled, edged reds, tell us. Maybe we've got some pollen you can use next summer. If you just picked the seedpod off a bee-pollinated scape, we'd like to see the results.....if you know mom's name, so much the better. If we have too many slides, (big grin), we'll have to limit how many you show. Please bring your questions as well; maybe someone will know the answer.

We've got a GREAT Line-Up of Speakers This Year!!!

I've already mentioned the January meeting agenda (backyard hybridizing), and the April meeting (Lynn Purse/ Color Harmonies), and the rest of the meetings will be very special as well. I will get you more information as time goes along regarding our other speakers, but here's a short synopsis.

February 13 -Darrell Apps will be coming to town. Darrell did some of his college work at the UW, and has gone on to make a great name for himself in the development of hardy daylilies for the north. Some of his introductions are: HAPPY RETURNS, PAR-DON ME, OVER THERE, and SUGAR COOKIE are but a few of his creations. He is a gardener who enjoys all sorts of annuals and perennials, and his garden is Woodside Garden.

March 16-Robert Griesbach, another giant of hybridizing, and a scholar of tetraploidy in both daylilies and the genus *Lilium* will come to share some of his vast knowledge. Some of the plants that he hybridized include: COOKIE MONSTER, GREBE, MALLARD, QUAKING ASPEN, and SCARLET TANAGER are only a few of the many. Bob was at the forefront of developing tetraploids through the use of colchicine.

May 18-Doug Maxwell. Doug is a plant pathologist, and will talk about disease and daylilies. Doug and his wife, Martha, are enthusiastic growers of daylilies.....you saw their wonderful garden this summer on the tour. This is your chance to ask all your questions about why the leaves on your daylilies look icky in the spring, or why they get streaks.

October 15-Norm Baker-Norm Baker runs a daylily nursery just northwest of Minneapolis on a grand piece of land. I attended the Region 1 meeting a few years ago, and his garden was on tour. Norm sells daylilies and is also running a test garden to determine which plants are hardy in our climate. I met him at the Orchid Sale and I was asking him questions about orchids, and said I was more interested in daylilies, and so was he.



Wisconsin Daylily Society, Inc.

Membership Renewal for 2000

Please enroll me as a member of the **Wisconsin Daylily Society, Inc.** for the year 2000. Please check here _____ if you would like to send in your membership for multiple years, and indicate how many years for which you would like to join Memberships run from January 1, 2000 to December 31, 2000.

Name(s) _____

Street Address _____

City _____ State _____ Zip _____

Phone number _____ E-Mail _____

Type of membership (Please circle one)

Individual -\$5.00

Family- \$7.50

Business- \$15.00

I enclose _____ payable to the **Wisconsin Daylily Society** for _____ years of membership.

Mail the entire sheet to: **Jean Bawden, 4385 Oak Hill Rd., Oregon, WI 53575**

Membership Questionnaire

Are you a member of the American Hemerocallis Society? _____
(you are not eligible for foster parenting unless a member of AHS)

Would you be willing to serve on a committee? _____

Would you be interested in being on tour in 2000? _____