



Canadian Prairie Lily Society

Newsletter

JUNE 1999

Number 86

President's Message

Spring is finally here! Now all our winter's planning to make more room in our yards for lilies can be implemented. I'm sure many of you have been face with this dilemma: the is too small, there are already too many lilies in it, but I'm sure I can find a way to make room for just a few more lily bulbs.

Our annual CPLS Lily Show is quickly approaching. It will be held July 16 & 17 at Market Mall, Saskatoon. Thursday July 15 from noon to 9:00 p.m. will be set up time. Volunteers are needed to help with set-up, staging and other aspects of the show. If you can help please contact me at 653-5333 (days) or 306-947-2830 (evenings). We count on membership involvement to keep our society viable and active!

Also, with regard to the show, we've added a Junior category for those 18 years and under who are growing and/or hybridizing lilies. If you know a young person

who might be interested in participating in our show, please pass show details along to them, or contact me with their name and address and I'll send them a show schedule and details. We encourage young people (and people of all ages) to be interested and involved in horticulture in general and lily culture in particular.

As I take on the duties as President of CPLS, I feel confident that I can count on the expertise and guidance of long-term members of our society. I welcome suggestions, ideas and input from the membership in any of the areas you feel could be improved.

On behalf of CPLS I would like to express our gratitude to Paul Stevens for many years of service as CPLS President. His leadership and dedication to our Society are very much appreciated.

If the weather co-operates and we avoid tornados, hail, botrytis, drought, damaging winds and late spring frosts, we'll have a spectacular, record setting lily show in July!

Think positive. Happy Gardening! Barbara Adams-

Where do they come

"Brush-Marked" Lilies

by Edward A. McRae, Oregon Bulb Farm, Oregon

The popularity of the group of Asiatic hybrid lilies

which possess a blotch or "brush-mark" on their tepal is not in question: they repeatedly produce awe and admiration in those who view them. Top marks in the Popularity Poll conducted at the annual show of the Pacific Northwest Lily Society for several years underline the popularity of the "brush-marked" lilies. Asiatic lilies of every color and form are exhibited at the shows here and all the public attending are asked



Mysticrose

Bakersfield

photos by Barbara Adams Eichendorff



to vote for their favorites. the "brush-marks" have consistently emerged as winners, and their overall impact here and overseas is an indication of a bright future for this type of lily.

We are not certain who first coined the phrase "brush-mark". The term just seemed suddenly to appear in conversation and correspondence and was immediately accepted. we believe, however, that F> Henry Payne should be credited as author of this term, and he has been along-time admirer and producer of this type of lily.

This characteristic was first observed at Oregon Bulb Farms in 1970. We had obtained pollen of the magnificent 'Connecticut King' from an N.A.L.S. Show in 1968 and some of this pollen was used to produce seed on 'Enchantment'. A considerable number of seedlings were raised, and we were able to observe that many undesirable characteristics were carried recessively by both parents; a high percentage of the seedlings were termed "dogs". A number of attractive bright orange clones were selected, however, and of these 'Hallowe'en' and 'House of Orange' are still with us and both show impressive disease resistance and durability.

Two other especially interesting clones were among the selections, one showing distinct "brush-marks" and the other only traces. The latter clone was used further in breeding as will be discussed later. (Carl Feldmaier sent us photographs a few years later of a similarly slightly "brush-marked" hybrid of his from similar parentage; he called the markings "pencil-lines".) The other clone was very tall, with dark stems and glossy green foliage and, under cool conditions, its flowers carried a distinct "brush-mark". This clone, introduced and called 'Picasso', was grown in large quantities but it was discontinued in 1984 because of virus problems.

The really startling "brush-marks", however, came from an entirely different line originating from a cross first made in 1965, 20 years ago!

We had obtained from Edgar Kline an excellent clone of *Lilium leichtlinii* var. *maximowiczii* f. *unicolor*. Earl Hornback was deeply impressed with the virus-tolerance qualities of this clone and it was decided to cross it with an earlier flowering upright lily with somewhat similar attributes. We settled on 'Golden Wonder' which had been grown at the Farms for several years. This clone appears to be a selection of true *L. dauricum* (its seed germination patterns

indicate that none of the epigeally germinating upright species are in its background) and it is one of the earliest lilies to flower in Western Oregon. It is especially interesting to note that both clones are still in existence. *Lilium maximowiczii* f. *unicolor* continues to grow well for us and we have never observed any visible virus symptoms in this clone. Although 'Golden Wonder' was discontinued by Oregon Bulb Farms, it is still being offered by other growers.

The seedling population from *L. maximowiczii* f. *unicolor* x 'Golden Wonder' flowered in the late sixties, and the uniformity of the group was striking. All seedlings were tall and vigorous, with medium orange, spotted flowers, all out-facing. This uniformity is a seedling population is what we normally expect from a fertile inter-specific cross. We were surprised that crossing two unspotted forms of species, however, could produce 100% spotted forms but we have since then seen this in *L. maximowiczii* f. *unicolor* x 'Connecticut King' and in *L. amabile* f. *unicolor* x 'Connecticut Lemonglow'. This suggests to us that there are at least two independent genes whose recessive form can cause spotlessness, one governing the presence of papillae (the "raised dots") and the other pigmenting them if they are present. The unspotted forms of the species *L. amabile* and *L. maximowiczii* do have papillae but these "dots" are not pigmented. Perhaps 'Connecticut King', 'Connecticut Lemonglow' and 'Golden Wonder' carry genes for pigmenting these raised dots but are unspotted themselves because they simply lack the dots to color. Their offspring would thus carry genes both to produce papillae and to pigment them and, hence, would be spotted.

The seedling from *L. maximowiczii* f. *unicolor* x 'Golden Wonder' were intercrossed to produce the second generation which flowered in 1971. These seedlings were a most variable lot, as expected, and the majority were lacking in vigor and stamina as, unfortunately, is often the case in true second-generation populations (produced from two clones) in lilies. Several of the seedlings were unique and delightfully unusual, however, including an eye-catcher with an oxblood-red "blotch" in each tepal. It was the only seedling among 300 which showed this characteristic.

This seedling was selected for further breeding and given the clone number OE-31; its foliar characteristic and height resembled those of *L. maximowiczii* f. *unicolor* but its flowers were upright, of soft golden

orange color, and of exceptional form and substance. The blotches of "brush-marks" were almost one inch square, just above the nectaries and were bordered on either side by a few spots.

We used pollen of OE-31 on several unspotted lilies, theorizing that this would be more likely to permit expression of the "brush-mark" in the next generation (we have since changed our theory, but it did produce the desired result). We were especially interested in 'Connecticut King' because of the gold blush covering about the same tepal area as a "brush-mark". We produced a substantial quantity of seed from 'Connecticut King' x OE-31, and sowed it in an outdoor seed bed in late February 1973. Growth of the seedlings was excellent and the bulbs were lifted late in the season and stored overwinter at 34°F.

The seedlings were planted in rows in the field the following Spring and they were left there for two years. A magnificent group of plants flowered in their full glory in the Summer of 1975. We were awed by the beauty and vigor of this population of seedlings; the "brush-marked" seedling however, were so unusual and beautiful that we seemed to have eyes for nothing else!

Their colors varied from bright orange to soft golden orange, and many unspotted forms were also present. Two distinct and probably genetically linked color patterns were observed among the "brush-marked" seedlings; they either had plum-red "brush-marks", light plum-colored stigmas and soft golden orange pollen, or they had dark oxblood red "brush-marks", dark purple stigmas and dark cinnamon-brown pollen. The color tones of the flowers varied considerably with the group but the color of "brush-marks", stigma and pollen were always correlated. The weather during the selecting was cool and damp and it remained so during the flowering period.

The selections were planted out in another field for observation during the flowering year and, at this subsequent flowering season, we were puzzled to observe several seedlings now showing no visible "brush-marks" and many others with just a trace of the "brush-marks". We concluded that the characteristic is profoundly influenced by environmental conditions (especially temperature) and we decided to retain only the clones in which the "brush-mark" appeared stable. Twenty-two were retained from the original 142 selections.



Virginia Howie

The remaining clones were propagated and tested over a period of years and they have shown remarkable vigor and disease resistance. Four clones were named and introduced. 'Vanguard' is a taller lily with large flowers bearing plum-red "brush-marks" and the flowers intermediate between upright and side-facing. 'Impact' is an excellent clone with deep glossy green foliage and very dark purple "brush-marks". 'Endeavor', a softer golden orange, has flowers with bright plum-red "brush-marks" and narrower tepals, producing a unique effect. 'Accent', with the softest coloring, has attractive reddish "brush-marks".

It may be surprising that little further hybridizing was done with the "brush-marked" lilies for several years at Oregon Bulb Farms, chiefly because of intensive work with earlier flowering Asiatics. A number of others, however, have done meaningful work with these lilies, and many visitors to N.A.L.S. shows have viewed some of the magnificent forms produced by Julius Wadekamper of Borbeleta Gardens. (Note: Julius Wadekamper won the coveted Earl N. Hornback Award in 1983 with a beautiful "brush-mark" seedling).

Dr. Robert Wither of Melbourne, Australia, has also been working with "brush-marks" and we have been most impressed with color slides of some of his

beautiful hybrids.

The next step here was taken quite independently by Judith McRae when she used "brush-mark" pollen (from 'Connecticut King' x OE-31) on two tall cream-to-white Asiatic lilies. The first parent was 'Sterling Star', one of the first dependable upright white Asiatic clones. This clone was first selected in 1963 and a large acreage is still grown in Holland. 'Sterling Star' was produced by crossing a tall 'Hallmark' selection with the early-flowering mid-Century hybrid 'Croesus'. The second clone used by Judith was OF-99, a hybrid between 'Sterling Star' and an upright clear pink originating from ('Lemon Queen' x Mega) x 'Prince Charming'. Her choice of parents was excellent and succeeding generations of "brush-marks" underline this wise choice. Both 'Sterling Star' and OF-99 have a tall, pyramidal inflorescence and superb flower form and they also carry the genes to produce an array of new pastel colors into the "brush-mark" lilies.

The first generation from Judith's crosses produced mostly creams, soft buffs and yellows, many carried "brush-marks" varying greatly in size. There were also spotted forms. These were used extensively in further work as will be described later. (Judith also crossed "brush-marks" with early flowering hybrids of *L. pumilum* and *L. amabile* but these gave less robust

hybrids; she is continuing to work with them.)

we now return to the first part of the "brush-mark" story, the cross between 'Enchantment' and 'Connecticut King' for we now decided to cross two superior clones which had originated from this cross. The clone 'Hallowe'en' was used as the seed parent and the pollen parent was a bright orange clone which showed traces of "brush-marks". 'Hallowe'en' is especially renowned for its totally non-fading, bright orange, unspotted flowers and for its remarkable disease resistance.

We had hoped to produce from this cross a yellow 'Enchantment' and, indeed several excellent bright yellows were produced. Several of these had distinct plum-red "brush-marks" and were used in further hybridizing. The really distinctive and dramatic "brush-marks" have never appeared (thus far) in a first generation cross (unless one parent had a dramatic "brush-mark"); they have all been produced from F₂ crosses.

These yellow "brush-marked" seedlings were crossed both ways with a yellow clone from Judith's cross of OF-99 x ('Connecticut King' x OE-31) "brush-marks". The flower form and substance here were vastly superior to the yellow "brush-marks" from the other cross. These crosses flowered in 1981 and many truly outstanding yellow "brush-marks" were selected. Several of these clones are being propagated and show tremendous promise.

A second cross of merit involved 'Endeavor', one of the original selections from 'Connecticut King' x OE-31. 'Endeavor' was crossed both ways with cream selections from 'Sterling Star' X ('Connecticut King' X OE-31 "brush-marks"). This cross also flowered in 1981 producing a wide variety of "brush-marks" of varying colors, including unique buffs, soft yellows, and creams and vastly superior "brush-marks" in orange shades. A number of these clones appear to be outstanding.

The final cross in this series combined cream selections from Judith's 'Sterling Star' x ('Connecticut King' x OE-31) "brush-mark" with similar selections from her OF-99 x ('Connecticut King' x OE-31) "brush-marks"; this cross also flowered in 1981. This cross again produced an array of colors including soft pinks, whites, creams and buffs. Superior clones are being rapidly propagated. Judith made similar intercrossings using a wider color pool of later-flowering selections and the offspring show a wider color range. Each season sees her revising her opinions about the mode of inheritance of "brush-marks" and making a few more "test-crosses".

We have been deeply impressed with the vigor, disease resistance and unique beauty of these "brush-marked" lilies and these become even further enhanced as new generations emerge. We are confident that they will win acclaim both as dependable garden lilies and as new spectacular subjects for the cut-flower market.



Editor's Desk

Diann Putland has prepared a complete list of the CPLS Library holding, it is current to May 1, 1999. For members who would like to borrow books, NALS Quarterly, NALS Yearbooks and past issues of the CPLS Newsletter ...a printed copy of the library list is available from the Newsletter editor. To obtain a copy please send a self addressed envelope with a 46 cent stamp affixed to the editor.

DEADLINES are February 15, May 15, August 15 and November 15. So set pen to paper or fingers to keyboard and send your words to :

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Coming Events.....

July 3 - 4, 1999

Martagon Lily Show, Devonian Botanic Garden, Edmonton, AB. **Contact:** University of Alberta 403-987-3054.

July 8 - 11, 1999

North American Lily Society. **52st Annual Lily Show** is sponsored by the Wisconsin-Illinois Lily Society. The show will be held at the Chicago Botanic Garden in Glencoe Illinois. For travel information call Barbara Young (X306) or Mary Ryan (X379) at Ivory Isle Travel Agency's special toll-free number: 1-800-678-5708. The Hyatt Deerfield is the official hotel. The schedule of events and show classes will arrive with the March QB sent to NALS members.

July 12 -13, 1999

Kindersley Horticultural Society. 17th ANNUAL LILY SHOW. The Show will be held in the United Church Hall, 520 Main St., Kindersley, SK. **Contact:** Claire Haubrich, 306-463-2859.

July 15,16,17 1999

Canadian Prairie Lily Society 33rd ANNUAL LILY SHOW. The show will be held at Market Mall 2325 Preston Ave, Saskatoon. **Staging:** Thursday July 15, 6:00p.m. to 9:30p.m. and Friday July 16 from 8:00a.m. to 9:30a.m. **Judging:** Friday July 16 at 10:00a.m. **Public Viewing:** Friday July 16, 2:00-9:00p.m. and Saturday July 17 10:00a.m. to 3:00p.m. **Clean-up:** Saturday July 17

3:00p.m. **Stem Sale:** Saturday, July 17, 3:30p.m. Chairperson: Barbara Adams-Eichendorf. 306-947 2830.

South Saskatchewan Lily Society ANNUAL LILY SHOW. The show will be held at Victoria Square Mall, Regina, SK. **Contact:** Elaine Fellner 160 Carmicheal Rd., Regina, SK, S4R 6E2. 306-949-7739.

July 16 and 17, 1999

Manitoba Regional Lily Society ANNUAL LILY SHOW. The show will be held in the St. Vital Shopping Centre, Winnipeg, MB. **Contact:** Gordon Danzinger, 540 Mountain Ave., Winnipeg, MB, R2W 1K9. 204-582-1110 (Bus) or 204-339-4655 (home).

July 17 - 18

Ontario Regional Lily Society ANNUAL FLOWER SHOW. **Contact:** Brian Bergman, 80 Welland Avenue, St. Catharines, ON, L2R 2N1.

July 18 - 25, 1999

Neepawa & Area LILY FESTIVAL Neepawa, MB. **Contact:** Festival Committee, Box 2376, Neepawa MB, R0J 1H0. Tel:204-476-8811 or 1-800-633-7292; Fax: 204-476-5231 or e-mail: lily@techplus.com



Annual General Meeting

1999 Annual General meeting was held on April 21 at the J. S. Woods Library. A slate of officers and directors for elections was presented by the nomination committee. The results of the election are as follows:

PRESIDENT: Barbara Adams-Eichendorf, Box 371, Hepburn, SK, S0K 1Z0

VICE PRESIDENT: Diann Putland, Box 24, Churchbridge, SK, S0A 0M0

TREASURER: Art Delahey, 18 Pony Trail, Riverside Estates, SK, S7T 1A2

SECRETARY: Margaret Driver, 22 Red River Rd., Saskatoon, SK, S7K 1G3

PAST PRESIDENT: J. Paul Stevens, Site 512, Box 1, R.R.5, Saskatoon, SK, S7K 3J8

TWO-YEAR DIRECTORSHIPS:
John Bond, 69 Murphy Crescent, Saskatoon, SK, S7J 2T5

Carmel Dodd, 3319 Ortona Street, Saskatoon, SK, S7M 3R7

Frank Dodd, 3319 Ortona Street, Saskatoon, SK, S7M 3R7

Stan Dunville, 1329 12th Street East, Saskatoon, S7H OE5

Sherry Mah, 1518 Ewart Avenue, Saskatoon, SK, S7H

2K8

Sharon Newton, 1615 Alexander Avenue, Saskatoon, SK, S7K 3C4

Jim Sullivan, 313 Bate Cres., Saskatoon, SK, S7H 3A6

ONE-YEAR DIRECTORSHIPS:

Ken Agnew, 2421 Wiggins Avenue Southm, Saskatoon, SK, S7J 1X1

Bob Caldwell, 1616 Landa Street, Saskatoon, SK, S7J 0P6

Ed Driver, 22 Red River Rd. Saskatoon, SK, S7K 1G3

Herb Sunley, 1121 Avenue J South, Saskatoon, SK, S7M 2C2



Lilies in the Life of a Young Enthusiast

by Rizanino "Riz" Reyes, Shoreline, WA

It is quite an honor to have been asked to write an article for the North American Lily Society quarterly Bulletin. I am 16 years old and have been a member for only a year at the National level, and two years with the regional Pacific Northwest Lily Society. I've learned much from both groups and many generous and supportive members have helped to develop my interest in these fascinating plants. It is an interest which I've had since I was a little kid.

Looking back, I can say that I've come a long way since buying some clearance bulbs of the popular Oriental 'Stargazer' about five years ago. My interest grew from those first few bulbs. As I learned more and more about these plants, it has led my interest to other areas of gardening and horticulture that I wanted to

learn about. Above all, however, I wanted to have these stately lily plants in my garden, not just at the grocery store florist, where guys would laugh and stare as I smelled the stems of lilies displayed in buckets. I wanted to be able to enjoy their beauty and vibrant color in the summer garden. Next thing you know, I'm studying scale propagation, polyploidy, tissue/embryo culture, and the ever fascinating world of plant breeding.

Aside from everything that went on this past year, including school work, aphids and hail damage, I managed to put on quite a show with my lilies and other perennial plants. I promised myself I would do some crosses this year in hopes of having seedling bloom for the NALS International Show in Portland, OR. In my quest for the best hybrid lilies possible, I managed to get some excellent pollen from various sources around the world. Mr John Lykkegaard provided me with several specimens of Tango hybrid

pollen to work with and they seem to be quite fertile producing nice pods and a few viable seeds. A good friend, Ann Hawes owner of the Enchanted Lily and Daylily Garden in Redmond, WA, provided many of the parent bulbs which I used such as 'Tiger Babies' and various LA hybrids. I ordered a bulb of 'Latvian Promise' from Bob and Diana Gibson of B & D Lilies. It has the tango spotting pattern (heavy almost black speckles in the centre region of the flower), and I used it as a seed parent for two crosses. One with pollen from the tetraploid 'Apricot Supreme' and the other, with mixed pollen of *L.lankongense* hybrids, all triploids. The *L.lankongense* cross did not take. A nice pod was produced from the 'Apricot Supreme' cross which had embryos that probably could have been saved by using embryo culture.

The complex world of interdivisional hybridization is probably the area which most fascinated me. Since I learned of Oriental x trumpet crosses, later Asiatic x Easter Lily, and finally, Asiatic x Oriental crosses, I wanted to learn more. I wanted to find out what else was possible. With gorgeous creations out on the market such as 'silk Road/Northern Carillon', 'King Arthur', 'Catherine the Great', 'Anastasia', 'Scheherazade', and of course 'Black Beauty', I was immediately inspired to go out and do some pollen dabbling.

Each summer since I began to study basic hybridizing, all my clothes have been stained heavily with pollen and each bloom had flashes of the foil protecting the stigmas of emasculated blossoms. Since I was always after unusual crosses, I did not have much success. I didn't really have materials to rescue embryos nor the skill to do so, but if I want unusual crosses, I realize that I must learn these techniques. Thus, research is an ongoing process for me.

Part of the solution to my dilemmas in creating great hybrid lilies was to adopt the rule of just working with what others have created. I decided that if another broke genetic barriers making way for new forms, colors, etc., that I would try to take the next step. Judith Freeman from the Lily Garden in Woodland, WA gave me many tips on working with Orientpet crosses. She wrote that 'Silk Road' and 'Anastasia' are very good parents when crossed with tetraploids. Mr. Don Egger of Cebeco Lilies has also contributed by simply saying "Use the trumpet as the seed parent". This was a simple tip which got me started in the right direction. I try to save up money to buy the Orientpet and polyploid

lilies I can afford so I can grow them and cross them with one another. I feel that having lab to perform embryo culture rescues is another pressing need. I shall have to save up for that but I have a strong feeling it will pay off.

Being sixteen years old had its advantages I'll admit. People always say to me "you have so much time to work and create great stuff", but I never feel that way. I want to create that great line of huge tetraploid, rich, unusually colored, double flowered, tough as nails, elegant, but strong Orientpets now. Or how about a series of down-facing Asiatic, which are large, at times doubled flowered, delicately, but interestingly colored with spectacular spotting patterns, and tall, stately and elegant. Wouldn't you like to have a blue *Lilium* hybrid? No more artificial dyeing the Oriental 'Siberia'. They must fit in with the other plants I grow, so garden worthiness and quality will be considered of course, Hey, you can't blame a guy for dreaming, right?

I want to accomplish so much in such a short time. I hope to be recognized for my work, but most importantly I want to eventually contribute something to the horticulture world, by providing plants that are unmatched by anything in the market today. That would be my way of saying "thank you" to all my supporters and the horticulture community, which has been so generous to me. I can see doors opening to various careers which I may pursue. My gardening and work with plants has become important to me. Every part of my life revolves around plants and this interest has provided me with security in my life. Through gardening I find that I am able to express my artistic ability, skills and knowledge, all of which are still developing. Now I'm at a point where I'm comfortable with what I'm doing and how I'm handling things. Being a sophomore in high school makes things more difficult since it put pressure on me to succeed and do well. I just try to take one thing at a time.

[Editor Note: This article first appeared in the NALS Quarterly Bulletin, vol. 52 No.4, Dec. 1998.]

