

University Landscape Arboretum Box 132-1, Route 1 Chaska, Minnesota 55318

STAR LILY NEWS

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Quarterly Bulletin

Oct.-Dec., 1968 for (among other things) the North Star Lily Society

President FIRST ANNUAL MEETING SOTO TO THE PROPERTY OF THE PRO 935 5th Avenue S.E. Sunday, October 13, 1968 Rochester, Minn. 55901

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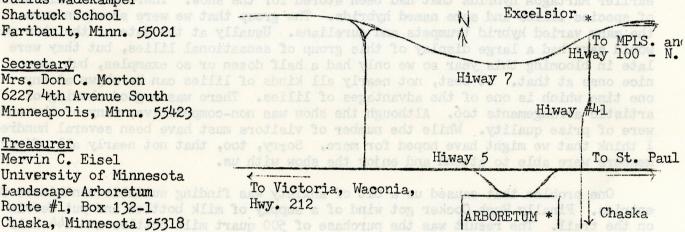
Mrs. Ernest Koehler 467 Mound Street Owatonna, Minnesota 55060 2 year term

Mrs. Joe Clifford 7900 Eastwood Drive N:E. Minneapolis, Minn. 55432 l year term

Editor Mrs. Joe Clifford (address noted above) Ass't Mervin C. Eisel (address noted above)

Earl Tesca NORTH STAR LILY SOCIETY

The meeting will be held at the University of Minnesota Vice-President Landscape Arboretum Classroom. Here is how to get there:



12:00 to 1:00 p.m. - Picnic. Please bring your own Directors 3 year term - Wall be furnished. Dr. Leon C. Snyder 1:00 to 2:20 p.m. - Business meeting and election of Dept. of Hort. Science same count equate and cofficers as blue as believe at the contract of t

10 minute coffee break and all medians 2:30 to 4:30 p.m. - Bulb Auction. Messrs. Earl Tesca and Julius Wadekamper, auctioneers.

Bulbs are being purchased by our society from Mr. Jan de Graaff of the Oregon Bulb Farms. Donations of cookies, lily bulbs and perennials will be most welcome. Donated lily bulbs will be auctioned off and donated perennials will be marked for sale.

The booklet Let's Grow Lilies will be on sale. There will be a slide program if time permits.

We are hoping to see you!

October Annual Meeting Committee Mrs. Walter Kulak, Chairman Mrs. Don C. Morton assessment and sale sales of brand on Mr. Lester W. Johnson wed bus remember years a brokens?

EVALUATION OF THE NORTH STAR LILY SOCIETY'S FIRST LILY SHOW, July 13-14, 1968

From President Earl Tesca:

Each year brings important historical events. Probably 1968 will be remembered for (among other things) the North Star Lily Society Show.

It was really a very good show, especially for a start. We had a good and efficient show committee. The place was just right. The exhibits were good and varied. In greatest abundance lilies in the turkscap, up and outfacing class, from the L. davidii, L. tigrinum, and L. umbellatum stock. Great variety was shown in color; yellows, oranges, and deep reds came in various shapes and sizes. There was a good sample of those derived from the Patterson hybrids and similar parentage. these in varied pastel colors to near white. These came largely from Louise Koehler and Merv Eisel but some from other folks too. We also had a small showing of the earlier Martagon hybrids that had been stored for the show. There was a fair showi: of species lilies and some named hybrids. The group that we were short on were the many varied hybrid trumpets and Aurelians. Usually at the date of the show we would have had a large display of this group of sensational lilies, but they were late in blooming this year so we only had a half dozen or so examples, but some nice ones at that. At best, not nearly all kinds of lilies can be shown at any one time which is one of the advantages of lilies. There was a good showing of artistic arrangements too. Although the show was non-competitive, many of the entr were of prize quality. While the number of visitors must have been several hundred, I think that we might have hoped for more. Sorry, too, that not nearly all of our members were able to attend and enjoy the show with us.

One problem that caused us a bit of anxiety was finding suitable containers for entries. Finally Hugh Cocker got wind of a supply of milk bottles and put Mervin on the trail. The result was the purchase of 500 quart milk bottles and 144 half pints for 2 cents each. Meanwhile I was making the rounds of Rochester dairies and ended up with 290 pint bottles from our local Marigold Dairy for free. So we now own enough bottles to take care of a considerably larger show in the future. If morare needed, we could save bottles that orange juice comes in that are much like quart milk bottles.

For the after show cleanup we had a good supply of help and it was all complete in less than an hour from closing time. "Many hands made light work."

The experiences gained from our first show should be most helpful in the future My personal thanks to the Show Committee, to those who helped to obtain and transposite to all who brought exhibits, the ones selling books and taking new memberships, who helped as hosts, who helped with the cleanup and all who helped in so many ways to make the show a success. It is difficult to remember them all; the cooperation was the best! Thanks to all.

From Vice-President Julius Wadekamper:

First of all I want to thank all the members of the Show Committee who worked so hard to make the show a success - Mary Morton, Dave Goddard, Judy Goddard, Mary Sanford, Audrey Krueger and her husband.

Secondly, I want to thank all the people of the lily society who worked so hard setting up arrangements, tables, filling bottles and taking the whole thing down when it was over. It was all wonderful. Marie Rowell and her helpers did a tremendous job at the membership booth, and the contribution of all made it easy for everyone. It is good to see the members get together and all pitch in as they did.

Everyone who brought specimens helped make the Show the success that it was. Major contributions were made by Tesca, Koehler, Oistad and Doerr. Many others also brought specimens from as far away as Wisconsin and Iowa. We had well over 250 specimens. Some were put in the lobby upstairs at the bank and some decorated tables and the stair well at the bank. The specimens were unusually good. I hope next year we can have a competitive show for all those who worked so hard and so long to make this one a success.

A note of thanks to the Richfield Bank and Trust Company has been sent for the use of the basement. The bank people were most cooperative. We also gratefully acknowledge the courtesy of the Sweden House for the use of their facilities for our meeting. Attendance picked up well Sunday afternoon, and when you consider that the people who came, came specifically to see lilies, I think it's gratifying. I am very happy with the show and I know most everyone I talked to felt the same way. However, we are always ready for suggestions and if anyone has any they could pass them on to me and I, in turn, will incorporate them with my notes for the show chairman next year. Improvement is always possible.

I do not want to forget the many specimens that Mervin brought in Sunday morning I only wish I had collected the entry cards so I could see all the people who entered lilies and how many specimens each one entered. If anyone picked up these cards after the show, I would like to know.

From one of our Directors, Mrs. Louise Koehler:

The first show of the North Star Lily Society is over and what a show it was! All those lilies lined up on tables across the room were a beautiful sight drawing many fine comments from visitors. The arrangements, too, drew a lot of attention, with lights flashing from camera fans taking pictures of the lovely creations. All in all it was better than I expected or even dreamed a first show could be. The sho chairman, his committee, and all who took part in planning and setting up the show are to be commended for a job well done.

Something I noted especially was the camaraderie of the members. They worked together as one big happy family. I must say the two days I spent at the show were most enjoyable and I would not want to have missed them.

I am looking forward to next year when we hope to have even a bigger and better show, if that is possible, for now we all know how much of a wonderful experience it is for lily friends to get together - and work together!

REPORT OF MEMBERSHIP COMMITTEE FOR FIRST ANNUAL LILY SHOW

From Chairman Mrs. Marie Rowell. and Jon gradman and see of boom at JI .snovneys

Our committee was at all times alert to give what information was requested and also added much additional information gratis. The same of the same and the same of th brought specimens from as far away as Wisconsin and

We are glad to report that we secured 15 new members - one was a family membership. The following names are to be added to the roster: I lew misse end bas

Mr. C. J. Brisco 4700 Vincent Ave. S.

Mr. Carl J. Holst 3750 Abbott Ave. S. Minneapolis, Minn. 55410

Mrs. Edw. Harris and all was property Mrs. LaVerne Marscholl and Mrs. LaVerne Marscholl

Mrs. Warren Johnson as bemsent neve to bedeence I had redded asw it ils ni 2545 33rd Ave. South maig me trag shoot one file bas eettimmoo aid namitado Minneapolis, Minn. 55406

Mr. Herbert J. Hartleons a soo aids same Route #4 Minneapolis, Minn. 55410 Minnesota 55060 Minne

Mrs. Clarence Borg and molecular Mrs. Glenn F. Hanson was add appelwordes Minneapolis, Minn. 55427 Minneapolis, Minnesota 55430 od oloog very happy with the show and I know most everyone I talked to felt

Mrs. James Scott Mrs. J. D. Houdersheldt 6300 Chowen Ave. S. ddiw medd edayo 6817 Thomas Ave. N. I bas en od no medd Minneapolis, Minn. 55410 Minneapolis, Minn. 55430

Esther Le Page Mrs. Louise Bierl of day don de la language de la l Lake Elmo, Minn. 7969 Eastwood Drive N.E. Route #1 enoyme 11 beredue eno de Minneapolis, Minn. 55432 seille beredue

> Mrs. Laura Browning 6345 Thomas Avenue South Minneapolis, Minn. 55423

5901 Drew Ave. S. a grow moon and a 957 Tiller Lane w benil satisf each LIA Minneapolis, Minn. 55410 Minnesota 55112 Minnesota Minnesota 55112 Minnesota Minnesota 55112 Minnesota Minne

We are also pleased to welcome the following new members:

Mrs. Benton Case Box 128

Mr. Howard Nelson 6124 Sheridan Ave. S. Minneapolis, Minn. 55401

Mrs. John C. Ouhl Box 3, Route 2 Arlington, Vermont 05250

ment bessim ov Mr. Douglas E. Peterson s eldsvoide tsom Wheaton redded b Wayzata, Minn. 55391 of egod ew ded Minnesota 56296 www.oi yabloof ms I

> treddegod brow bDr. Carl O. Rice, M.D. mein will not at 5113 Schaefer Road Minneapolis, Minn. 55436

> > Mrs. Franklin B. Shaw Route #1 Brookings, South Dakota 57006

Is no that ed as HOW TO GROW LILIES IN A SEVERE CLIMATE worm now his sand these

Owatonna, Minnesota

There was a time not too long ago when lilies were mentioned that one common remark by northern gardeners was, "You can't grow lilies here. They aren't hardy in our gardens." The exceptions were the Tiger and the Red Russian lily. Occasionally some brave soul dared to try Regals and Madonnas. Sometimes they would live for several years, especially if there was a good natural snow cover in winter, but when an open winter came along, like the one we just experienced, they would freeze out.

Before World War II a few hybrid lilies were offered in catalogs but they did not become popular. Then, about 25 years ago, with the advent of a sudden new inter est in hybridizing the lily, many new hybrids that could withstand the rigorous climate of the northern states in the U.S.A. and of southern Canada, came into being Each year new ones were added to the list and now there are lilies in almost every shape, size and color that are hardy here. They are the Patterson hybrids, Midcenturies, Harlequins, Trumpets, Sunbursts, and even speciosum-auratum hybrids plus others.

To raise lilies successfully here, the most important requisite is good drainage. When the drainage is poor so that soil remains wet and soggy for any length of time the bulbs will rot. There are a few that do not mind wet feet, for example the North American species such as <u>L. pitkinense</u>, known as the bog lily, and <u>L. michiganense</u> will tolerate wet conditions but not for an extended period.

A slope where excess water can run off is an ideal site for growing lilies. If such a site is not available the next best thing is to make a raised bed. This should be raised from six to eight inches. Soil taken from the path and piled on the bed will raise it a little. The addition of peat, moss, compost, rotted sawdust or leafmold will bring it up more and at the same time make a good friable medium for the bulbs to grow in.

Although many of the lilies are not particular as to the type of soil, they will reward you with sturdier growth and better bloom in a specially prepared soil. If you have soil that is clayey or heavy, the addition of sand and peat moss, compos or leafmold will lighten it which will give better drainage. A sandy soil can be improved by adding peat moss, compost, rotted sawdust or well rotted manure.

Those of you having a site protected on the west or north sides by a hedge, a woods, a block or rockwall, or a building, can also raise almost all of the newer hybrids that are not reliably hardy in open beds. The east, west, or north side of a house is a good place for even less hardy kinds. Lilies preferring part shade, such as the Auratums, speciosums and their hybrids, will do quite well on the north side while some of the not so hardy Trumpets, like Royal Gold, will flourish on the east and west sides.

There is one drawback to planting lilies next to the house and that is growth will start too early in spring and a late freeze will injure them unless they are covered when frost is forecast. A winter mulch of leaves, straw, or any other mulching material will prevent lilies from emerging too early in spring. A two to

four inch mulch is sufficient for mature bulbs and four to six inches for young seedlings if you grow your own lilies from seed. This mulch can be left on all year around. In spring you may have to remove some of the mulch so that the lily shoots can come through. Just push it between the rows.

There are six advantages to a year round mulch. They are as follows:

- open winter.
- 2. It prevents frost from penetrating the soil too deep which could injure the bulbs in an open winter.
- 3. It keeps frost in the ground later in spring and prevents lilies from emerging too early thus saving them from being nipped by a late frost.
- 4. It helps to conserve moisture and keeps the soil from baking in the hot sun and becoming packed.
- 5. It keeps the weeds down which means less work to take care of the beds.
 - 6. It keeps the soil cool in summer: lilies like that.

Lily bulbs should never be allowed to go into the winter in a dry soil. Give the beds a thorough soaking before fall. After several hard frosts the mulch can be applied. I believe that winter mulching is another requisite for success with lilies in our severe climate. Winter temperatures fluctuate from much above freezing to much below and by keeping the soil from thawing and freezing with a mulch, bulbs have a better chance of survival. A mulch is essential in a winter without snow.

Those of you who consider a mulch in summer unsightly may wish to use plants as a ground cover. Some annuals and perennials that will not grow too lush and rob the lilies of food or smother them will serve a double purpose: that of keeping the ground cool as well as providing bloom and color after the lilies are done. I sprinkle a few cosmos, aster, zinnia, and annual poppy seeds on the beds in May and let them come up voluntarily. Petunias are fine for a cover too. Any of these seed can also be sprinkled on mulched beds for bloom late in summer. You may prefer othe annuals or perennials, but be sure to choose kinds that will not crowd the lilies or take over in the beds. If too many volunteer plants come up some can be pulled out and given to friends. It usually is not difficult to find friends who are glad to take them.

One more requisite that I think is important, too, for success with lilies in our severe climate is to buy bulbs from local or northern growers whenever possible. You will find a list of local growers in the article "It's Lily Planning Time" by Charles Lampright in the April-June, 1968 quarterly bulletin. In the same bulletin there are also addresses of Canadian and other growers who handle most of the newer named hybrids from which you can pick the ones you want.

Good pickings to you and good luck! I a bus animas of wives out drafe like

NOTES ON LILY BREEDING AT DROPMORE

D. B. McNeill, B.S.A. Benen even ew will sin't Skinner's Nursery Limited, Roblin, Manitoba

Reprinted from The Marlin, the newsletter of the Middle Atlantic Regional Lily Group.

As I sit here writing this article my thoughts want to wander - wander to the memory of the late Dr. F. L. Skinner, who, for the past 60 years was Canada's most famous plant breeder. I look back on the past 15 years that I was associated with him, with some regrets that I was not able to get close enough to him to know all that he was doing in his breeding work with lilies. Dr. Skinner was a 'loner'; he worked by himself most of the time and kept most of the records of his work to himself. Consequently, his death last August has left us with many unanswered question about his work with lilies and more particularly his work with Lilium centifolium.

The summers of 1964-65-66 were the last that he was able to work, and to hinder efforts even more, his legs gave out during the winter of 1966 so that in May he was only able to crawl around his beloved "patches". However, by the time the Centifolium were in bloom he was with sheer determination on his feet and with the use of a cane was able to move around quite freely dabblin pollen on his favorite lilies. During these three years he was successful in fertilizing these lilies with pollen of L. amabile, a yellow form of L. tigrinum from Japan, L. henryi, and L. auratum x L. speciosum. Due to early fall frosts and the late blooming habit of the Centifolium lilies, ripening the seed is quite an art. As soon as it appears that a killing frost is evident we must dig the bulbs, place them in flats and continue the ripening process in the greenhouse. The seeds are sown as soon as they ripen and the resultant seedlings are planted out as soon as possible in May. The bulbs grow well during the summer and are left in the ground over winter. This procedure soon separates the men from the boys and anything not hardy enough to withstand -40° F is promptly eliminated, leaving only the very vigorous and hardy bulbs. Those that are left will sometimes flower the following summer and we can start our selection.

As I mentioned previously, Dr. Skinner kept most of his records in his head and so we now do not have the complete record of the latter crosses he made. To add to the confusion, he suffered a stroke in June, 1967 which affected his ability to communicate, and we were not able to obtain the information even though he tried on many occasions to pass this along. Many of these crosses bloomed last summer and much to our disappointment the blooming habits were not changed. However, on digging the bulbs last fall there was a great deal of variation in the shapes and color with some shaped like bulbs of \underline{L} . $\underline{amabile}$. The F_2 seedlings should prove very interesting when they bloom.

To date, we have selected and named three clones as a result of this work. The first selection was made in 1956, a white trumpet flower with pink overlay. The outstanding feature of this lily was its hardiness. In 1958 we had a killing frost in late June which affected the bloom ofmany of the hardy lilies but 'Cupid', the name we gave to this lily, bloomed that summer with very little evidence of damage. In 1960 we named a beautiful, dwarf, lime-green lily 'Moonglo'. This lily lacks a little in hardiness but still winters well enough for us to continue propagating it until a better one comes along.

In 1965 we selected a strong growing pink centifolium hybrid which appears to be very hardy and vigourous and should do well in Western Canadian gardens. This lily we have named 'Assiniboine Chief'.

Last fall, after Dr. Skinner's death, our propagator and myself selected three clones for further testing as well as a large number of yellow-flowered hybrids which we "dumped" together to offer as a strain. Of these, one very tall, vigorous growing clone was kept separate and scaled. The other bulbs selected for further testing and evaluation are a very deep yellow and a second which is a good pink with a yellow throat. These will all be planted out this spring and with luck we wibe able to evaluate them in 1969.

I suppose that these lilies are nothing new to growers in the United States where you can already grow the de Graaff and other hybridizers' lilies with relative ease, but on the Canadian Prairies these lilies survive with only a very small degree of success. Dr. Skinner's goal was for lilies of similar quality of bloom but with much more hardiness. He did not achieve this goal but he did make a wonderful start, and at the moment I do not know how far we will be able to continue this work, if at all. In any case, we have scaled any that look promising and those that we could not had to be sent to other co-operators in the hope that in one way or another this work will be continued.

There is no doubt in my mind, that if this work is continued, that we will eventually have Trumpet lilies that will be completely hardy and will have the desirable features of blooming habit that are now enjoyed by lily growers in more favorable climates. It is only about twenty years ago that it was a real accomplishment to winter bulbs of <u>L</u>. regale, and now we winter <u>L</u>.centifolium and its hybrids with ease so that this line of lily breeding is really still in its infancy.

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August 27, 1968 on notamination and interest and of elds for every ew big and interest of

I have just returned from a trip to the West Coast. Highlight of the trip was a visit with Mr. Jan de Graaff and the Oregon Bulb Farms. Mr. de Graaff showed me all around through his large greenhouses, warehouses, sorting rooms, cold storage rooms, packing rooms and finally for a visit to the fields where magnificent beds of Imperial Gold, Imperial Silver and Imperial Crimson were all in bloom. The whole setup is immaculate and well kept.

Mr. de Graaff is trying to obtain crosses that will come relatively true so that for commercial sales he can make a specific cross between two parents and can be sure that the strain thus produced will give a flower that is true to the name. He is continuing to select new types that show up occasionally to introduce new strains. Since he has accurate records of each plant he knows which cross each plant comes from and then tests out thousands of these and continues to select those that are similar until he has a cross that produces exactly what he wants. It reminds me of the early work done with hybrid seed corn in this area some years ago.

Something new is a dwarf lily that Mr. de Graaff obtained from New Zealand. Since there is a demand for smaller lilies he works now intensively with this one to make a strain that will produce these small lilies.

This year, Mr. de Graaff has sold over one million bulbs of 'Enchantment'. The lilies are dug with machines, put in numbered crates and taken to the warehouse. Then they are assembly line processed, sorted by weight with a machine developed by the FMC corporation, packed in boxes and placed in cold storage for shipping. Those that are to be replanted are taken to the fields immediately and replanted.

You will also be interested to know that the Oregon Bulb Farms, owned by Mr. de Graaff, has been sold. Under the terms of agreement, Mr. de Graaff will remain with the Farms for four years. The purchaser is a man who invented a new type of oscilloscope, and his company cleared \$13 million last year after taxes. Apparently he purchased the Oregon Bulb Farms as part of his corporation.

Mr. de Graaff is interested in art and an original Picasso can be seen in his home, as well as many other beautiful paintings and sculptures.

STERILITY AND INCOMPATIBILITY IN THE PATTERSON HYBRID LILIES

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Somewhat over a decade ago Dr. C. F. Patterson introduced a number of varieties of lilies which not only exhibited a range in colors, not previously know to Canadian prairie gardens, but which could also be grown without winter protection under the severe cold conditions often experienced on the Canadian prairies. Many of these varieties had been observed to lack natural capsule formation and have been difficult to use as parental material in breeding programs.

In this study the lack of fertility in the "Patterson Hybrids" was investigated in relation to chromosome number, level of fertility, level of pollen viability and interaction between pollen and style on pollen growth.

Since balanced chromosome complement between the parents used in a cross is usually vitally important to the success of such a cross, this was one of the first factors to be considered in this study. A chromosome count, taken from root tip squashes, showed that one-half of the varieties studied carried the normal diploid complement whereas the other half were of complex aneuploid constitution as shown in Table I.

A study of pollen germination showed that the aneuploid group also did not germinate as well as the diploid group (Table I).

In addition to the foregoing study, a study to determine the level of fertility involving ten pollinations for each of 400 crosses showed that only 23 percent of the 400 crosses produced capsules. Only the unnamed seedling produced when selfed.

Furthermore, only one-half of the capsules had seeds with embryos and only one percent of the capsules containing seeds with embryos were obtained from aneuploid parents. These facts demonstrate the impact of unbalanced chromosome constitution on successful hybridization.

A study of pollen tube growth in the styles revealed four general classes or types of interaction. Some pollen did not germinate on the stigma (Class I). Aneuploid varieties constituted the greatest proportion of this class. Another group (Class II) germinated, but the tubes failed to penetrate the style and grew only on the surface of the stigma. Again this class was mainly composed of aneuploid pollen on diploid and aneuploid stigmas. The largest group consisted of pollen tubes which showed the typical incompatibility reaction, wherein the tubes only partially penetrated the style (Class III). The final group showed complete penetration but no seed set (Class IV).

The fact that ten of the "Patterson Hybrids" proved to be aneuploids with irregular chromosome numbers offers an explanation to the lack of capsule development. The lack of pollen germination, poor pollen growth and the presence of chromosome abnormality during meiosis suggest a high degree of male sterility. Female sterility is also likely from the high number of crosses in which the pollen tubes reached the ovaries but failed to bring about fertilization in the aneuploids.

The reason for the origin of the aneuploids are unknown. Since <u>L. tigrinum</u> was used in the parentage of nine of the ten we might speculate that the triploid for was used although this has not been documented. Although not specified in the records, the late Dr. Patterson had been known to use colchieine in his breeding programs and we may again speculate that chromosome numbers were increased at some stage of development by this means.

Whereas sterility is evident among the aneuploid varieties, the fact that all diploid varieties used either as a male or female produced viable seeds in some crosses precludes sterility as the major cause of unfruit fullness with the diploids.

The combining ability of the ten diploid varieties are presented in Table II. This is a summation of the results from both the field and greenhouse experiments, and as indicated in the code, where a superior rating was obtained in the greenhouse it is indicated along with the field rating. It is quite obvious from this study that certain diploids made very good pollen parents. Lemon Queen proved to be the best but was followed closely by Crimson Beauty, Red Torch and the unnamed seedling. On the other hand, Lemon Queen proved to be a very poor female parent as did Orchid Queen. Bronze Queen, Rose Cup and Red Torch were among the best female parents.

Although these barriers to fertility may be difficult to overcome, we are looki to recent work with heat treatment as one possible answer for some of the incompatibilities with the diploids. It is hoped that the combining ability summation (Table II) will serve as a useful guide for future hybridizing work.

TABLE I: Chromosome number and pollen viability of the "Patterson Hybrid" lilies.

			C	hromosom	е			Percent
Variety	7	- 	万	Number	7	1	7	Germination
			Ī	Diploid				**
Apricot Glow	370	7	7	24	A Park		Z	Red 1.3.4
Bronze Queen				24				15.0
Crimson Beauty		7	1	24			2	1020 22.0
Edith Ce c ilia				24				39•3
Lemon Queen				24			3	37.3
Orchid Queen				24			S	17.7
Primrose Lady				24			0	43.4
Red Torch		4	t	24	t	() #L	0 1	OLCH 26.0 GOU
Rose Cup				24				31.9
Unnamed Seedli	ng			24		7		темог42 . 9 еп
			<u> </u>	Aneuploid	<u>i</u>			
Burnished Rose	100			45				0.1 Edith Cecilia
Crimson Queen				46				9.3
Fuchsia Queen		I	F	42				Carrel 13.8
Jasper				36				2.1
Pink Charm		-fe-		38			500	prop.10.6660
Rosalind	4		5	46				2.9
Rose Dawn				42				3.2
Rose Queen				38	7			Aprico3.0low
White Gold				38				2.1
White Princess				42				0.6

TABLE II: Combining ability of Diploid Lily Varieties

Pollen penetration: 1 No pollen penetration of style. 2 Partial pollen penetration of style. 3 Pollen reached ovary.	Unnamed Seedling	Red Torch	Rose Cup	Primrose Lady	Orchid Queen	Lemon Queen	Edith Cecilia	Crimson Beauty	Bronze Queen	Apricot Glow	+0	
	e Dawn e 0.3-2 te 0.1	3-7	3-7	3-4	1-5	38	3-4(5)	3-7	3-5(7)	2-4	Apricot Glow	
of style.	k Char A alinみ	2-5	3-7	3-4	2-4	36	3-5(7)	3-7	2-4	2-5(7)	Bronze Queen	
style.	hei 3-7	3-7	3-7	3-7	1-4	3-4-8	3-4(7)	2-4	3-7	3-7	Crimson Beauty	
BA EE	3-7	2-5	2-4	3-4	1-4	3-4	2-4	2-5	3-7	2-5	Edith Cecilia	
Effects of 4 None 5 Pseudo 6 Seeds	3-7	3-7	3-7	3-7	3-4	2-4	3-7	3-7	3-7	3-7	Lemon Queen	
None Pseudocapsules Seeds with embryo	mr.036	Lady	1-4	3-4	2-4	2-4	3-4(7)	2-4	2-4(5)	2-4(5)	Orchid Queen	
ryo but 1	ion Que	3-5 GU	2-6	2-4	3-4	3-4	3-4(7)	3-4	3-4(7)	2-4(7)	Primrose Lady	
but light endosperm	14 Cec	3-7	2-4	3-7	2-4	3-4	3-4(5)	2-5	3-7	3-7	Rose Cup	
BH WA	2_4	1-7 een	3-7	3-7	3-7			1-5	3-7	3-7	Red Torch	
Va	3-7	3-7					(7) 3-4(7)	1-5 3-7	3-7	3-7	Unnamed Seedling	
-												

() denotes greenhouse pollinations where

5 Pseudocapsules 6 Seeds with embryo but light endosperm 7 Seeds with embryo and heavy endosperm

rating superior to field.

EDITOR'S NOTEBOOK WOOD & an lo dose lism of enelg

the next few years. Mr. Delahey's Lily Price List No. 1 is out this fall and he

The much talked about First Annual Lily Show of the North Star Lily Society, held July 13-14 this year, was in my estimation GREAT in every respect! Interest and cooperation ran high among the members and the show was well received by the public. Those who were there, I am sure, will be looking forward to next year's show and those who had to miss it should try their best to participate in 1969 in this major activity of our society. In spite of hot and muggy weather, the weekend of our show, plus two heavy downpours, attendance was most gratifying. Congratulations and sincere thanks from one and all are hereby extended to the chairman and members of the show committee for their splendid work.

Here are a few highlights at the luncheon and business meeting Saturday. I noted 33 people in attendance. Final consideration for the North Star Lily Society joining the North American Lily Society, Inc. was postponed. It was voted on and carried that the NSLS spend \$50 this year for the purchase of lily bulbs to be auctioned at the October 13 annual meeting. It was also decided that for this year at least we refrain from widespread publicity of the lily bulb auction so as to give the NSLS members first chance in the purchase of the lily bulbs. Many of our members are just getting started in their lily collection so this bulb auction will give many of us a good chance to purchase bulbs at reasonable prices. It was mentioned, however, that a member may bring a friend along to the meeting and auction. The society voted we give Carmen Gay, secretary at the University of Minnesota Landscape Arboretum, a small gratuity of \$10 for her fine help in cutting stencils for each issue of our quarterly bulletin.

In the artistic division of the show a total of 33 entries were counted. Contibutors were the following: Mrs. Margaret Fleming, Mrs. Lillian Anderson, Mrs. Lily Hinman, Mrs. Margaret Sanford, Mrs. J. V. Walsh, Mrs. H. W. Johnson, Merv Eisel and yours truly, Betty Clifford. Mrs. Robert Metzger, of the city of Blaine who I invited as the guest arranger, made 9 lovely arrangements and 2 corsages. Thanks a lot, Beverly, for your interest and help.

Just a little early reminder that the October annual meeting would be a good time for us all, if we have two or three extra dollars, to pay 1969 membership dues. The treasurer will be there and it would save him and ourselves a lot of time and considerable postage if he could get many 1969 memberships paid up then. Try and do this please. It is the end of our first fiscal year! The constitution says, "Notice of unpaid dues will be mailed about November 1. Members whose dues have not been paid by January 1 shall be dropped from membership. Mailings of the Society newsletter will not be made after January 1 to those who have not paid dues."

If any of the standing committees wish to report of their progress during the year, it would be very welcome at our October meeting. A complete up-to-date treasurer's report will be presented at the October annual meeting and you will see it in the January newsletter.

A good pair of scissors was found by our vice-president after the show. The owner may claim them by writing to Mr. Wadekamper.

You will be interested to learn of a newcomer to the commercial horticultural field, lilies in particular. Mr. A. E. Delahey, Riverside Gardens, 1088 East Centre Saskatoon, Saskatchewan, Canada, has recently acquired the total stock from the estate of the late Dr. C. F. Patterson. In recent years these lilies have been under the fond and able care of Fr. M. Doll. All of the Patterson named varieties a available in good supply along with some of the unregistered new introductions from his collection. Further introductions of some outstanding stock will be made in

the next few years. Mr. Delahey's Lily Price List No. 1 is out this fall and he plans to mail each of us a copy. NOOSETON 2 FROTICE

Exchange newsletters from various Lily Regional groups across the nation and Ontario, Canada, come to your editors regularly. These may be borrowed from the NSLS library, c/o Mervin Eisel. Postage, both ways, should be paid by the borrower. The following are also available for your use: 1946 American Lily Yearbook, and the North American Lily Society yearbooks from 1947 through 1966, 1965 Royal Horticultural Society Yearbook, and the International Lily Registar.

We sincerely thank our three main article contributors in this issue and our friend Julius Wadekamper for his exclusive West Coast story. A number of fine people have helped us with good interesting lily information during our first year for your reading and library shelf. Your editors have enjoyed meeting and/or corresponding with the various article contributors. Again to each of them we say Thank You!

Here are some interesting quotations I gathered in my summer wanderings and in particular while attending a portion of the National Catholic Rural Life Conference convention in St. Cloud.

Autumn - a time to fall and give thanks

Winter - Advent, a season to wait.

Spring - Joy, birth, and an Easter moment.

Summer - Sonship and Father's love.

Run in Hope!

Exhaust Yourself in Love!

Cows need farms, but everybody needs people.

A creative person: one who does common things in an uncommon way.

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Your editors are hopeful that you feel we have put out fairly worthwhile issues for you during our first year. Whoever is going to do the job next year will need a lot of help each time and you are the ones who can do it!

We are looking forward to seeing you at the Landscape Arboretum come Sunday, October 13. Don't forget to bring your lunch and the much needed donations of cookies, lily bulbs, perennial plants, and might I add bird feed. Sunflower seeds, shel corn and even ears of feed corn would sell. We all should feed the birds in winter.

Were you able to bring in a new member to our society this year? If not, 1969 is your opportunity!

We haven't had any report of the July, 1968 North American Lily Society International Lily Show in Philadelphia. Perhaps we will have something for you in January.

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Invitation to Membership in the NORTH STAR LILY SOCIETY

If you like lilies, and want to know more about them then come and join us!

MEMBERSHIP PRIVILEGES

October 1968 - October 1969.

Each member receives a copy of the Society quarterly bulletin Each member is entitled to one vote in Society affairs Each member is encouraged to participate in Society activities Each member is welcome to use library services

Fiscal year of the Society is from October to October

Individual Membership	\$2.00
Husband and Wife	\$3.00
Group	\$5.00

APPLICATION FOR MEMBERSHIP

Please enroll me as an Annual Member for the current year,

	closed is \$	DSCAPE ARBORETUM BOX 132-1 NINESOTA 88316
Name: (M	liss, Mrs. and/or Mr., or Group)	please print
Address:	Street or Route	
	City or Town	

Zip Code _

Please make check or money order payable to:

State or Province

North Star Lily Society c/o Mervin C. Eisel, Treasurer Route #1, Box 132-1, Chaska, Minn. 55318

Thank You!

If each present member could have a neighbor, friend or relative make use of the above membership form, our Society could grow "by leaps and bounds."

NORTH STAR LILY SOCIETY UNIVERSITY LANDSCAPE ARBORETUM ROUTE 1 BOX 132-1 CHASKA, MINNESOTA 55316 MM14 CANE J. R. Ross, Editor Ontain til, Figural Box 51 Bink rook, Ontonio

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