

of the

ONTARIO REGIONAL LILY SOCIETY

THE LILY SHOW

Our Ontario Regional Lily Society show will be one week earlier this year - July 9th and 10th. This should mean that the asiatics, martagons and american hybrids will be predominant on the show tables. Everyone who can possibly bring lilies to the show are urged to do so. Please read the show schedule over carefully. The single bloom classes have been changed somewhat, and more emphasis is placed on new seedlings. A new sweepstakes award, THE JAMES C. TAYLOR MEMORIAL SWEEPSTAKES, is making a new addition to our perpetual awards.

A severe winter and dry May have taken their toll on some gardens, and we urge each and every member to participate in this show to make it a success. If you have never entered a lily show before, please note that Section G is intended for novice exhibitors. It's fun as you will discover, and may even add a new dimension to your enjoyment with your lilies and garden.

Saturday, July 9th 1977 - Sunday, July 10th, 1977
Royal Botanical Gardens
Headquarters Bldg.
Burlington

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THE O.R.L.S. PICNIC

Mr. and Mrs. Charles Robinson of Erin, Ontario have consented to be our hosts for our 1977 picnic. The interest in last year's venture, and enjoyment we shared together, made a follow-up this year a necessity, and we are sure you will want to come along and participate. Mr. Robinson has been an avid lily hybridizer for many years, and if the weather holds we will be able to see many of his achievements in full bloom. The picnic will start at 3 P.M. and end with a buffet luncheon. Bring your own lunch, beverage and chairs, and we'll share the whole lot! And of course, if you have some special lilies - stems or blooms - that you want to share with others, do bring them along too.

Our thanks to the Robinsons for inviting us to share their home and garden with us.

Saturday, July 23, 1977

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1977 Annual Membership fees are past due. Please remit promptly to Mrs. William Reid, 871 Glenwood Avenue, Burlington, Ontario L7T 2J8. Single \$2.00, Husband and Wife \$3.00. No further Newsletters will be mailed to persons who have not paid their 1977 dues.

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NORTH AMERICAN LILY SOCIETY

The 1977 Annual Lily Show will be held at the University of Saskatchewan, Saskatoon, July 14th to 17th, 1977. If anyone is interested and does not have the necessary information contact the secretary. Refer to page 9, March 1977 bulletin for further details.

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Ontario Regional Lily Society: Annual Bulb Auction - Saturday, October 15th, at the Royal Botanical Gardens, Headquarters Building, Burlington, Ontario

PRESIDENT'S REPORT: 1977

Annual Meeting, April 17, 1977

It has indeed been a pleasure to look back on the activities of our Society this past year. Our membership continues to grow - evidence of widening interest in lilies. Our show was well attended and was supplied with one of the best displays yet seen. Almost all classes of lilies were represented.

A new venture was tried this year in the form of a picnic. It was held at the home of Mr. and Mrs. Gordon Brown of Harley. A good attendance was rewarded with a glorious display of trumpet lilies and some of the later flowering asiatics.

The bulb auction was both well supplied with bulbs and a good attendance; sales were brisk to say the least and we were quickly sold out.

As a result of these activities we enjoy a comfortable financial position and in consequence the Society was able to contribute to the Royal Botanical Gardens building fund.

This has only been made possible by the excellent support you have all given to your Society. I'm very grateful for it has made my job not only easy, but very satisfying. Thank you.

I must also express my appreciation to Ross Martin and Pat Martin. Ross, for the excellent bulletin he continues to faithfully publish, and Pat for her help in so many ways to make the group effective.

Your board is already starting to plan for the N. A. L. S. show here at the R.B.G. in 1979, and have already allocated funds to the R.B.G. and the Niagara School of Horticulture for lily plantings.

It is not too late to gear up to our show this year and make it even better.

Respectfully submitted,
Charles Gardner, President

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Highlights of the Annual Meeting:

- 41 members present
- in the absence of the treasurer, John Rutledge read the yearly financial report.
- Auditors' report accepted.
- Expression of thanks from the Greek Botanical Gardens for our gift membership in the N. A. L. S. The Gardens offers seed to anyone interested - refer Fred H. Hayes.
- A hand-painted plate was presented to Miss Mabel Watson, former treasurer, for her many years of faithful service. Miss Watson expressed her appreciation. The plate was painted by one of our members, Mrs. Margaret Smith, Lynden, Ontario
- Dr. Leslie Laking expressed the thanks of the R. B. G. for our donation of \$500 to the Gardens expansion program. A new exhibition hall will be in place for the International Show in 1979.
- Dr. Laking was named our honorary president, and accepted with thanks.
- Nominating committee report was presented by Robert Barber, and new officers are presented on page 4 of this bulletin.
- Draw for a gift package of lilies from Ross Martin (fall delivery) was won by William Davidge, Crystal Beach, Ontario. Bulbs donated by Herbert Pickering were won by: Mrs. Miller Stewart, Fenelon Falls, Ontario, Clifford Holcombe, London, Ontario, Harrison Scheak, Toronto, Ontario
- Discussion regarding the yearbook of the N. A. L. S. Motion passed that the O.R.L.S. forward to the N. A. L. S. our concern about the cost of producing the yearbook and yet maintain the high quality content which appears each year.
- Moved that \$100.00 be donated to the general fund of the N.A.L.S., another \$100.00 be donated to the George Slate Memorial Fund.
- Announcement that Charles Robinson has donated a James C. Taylor Memorial Sweepstakes Award in Memory of Jim Taylor. This will replace the former Eaton Sweepstakes.
- After refreshments, Fred Hayes showed a collection of species slides from the N.A.L.S. Library.

Patricia Martin, Sectry

Ontario Regional Lily Society: Treasurer's Report for the year April 1/76 to March 31/77

General Savings account:RECEIPTS

Memberships and advance memberships	301.00	
Lily Show receipts	548.87	
Bulb Sale and auction receipts	924.50	
Sale of notepaper, Let's Grow Lilies, Lilies '75	68.00	
Premium on U. S. funds	.51	
Bank Interest	2.29	
Total Receipts:		1845.17

EXPENSES

Royal Botanical Gardens - lily garden maintenance fund	100.00	
Annual Meeting and Auction - misc. expenses- coffee, ect.	15.93	
Donation to the North American Lily Society	150.00	
Newsletter expenses & Show schedule	299.42	
Lily Show expenses - staging, dec. judges, etc.	158.91	
George Holland Award and engraving	28.56	
North American Lily Society - Let's Grow Lilies books	51.58	
Flowers - Mrs. James Taylor, Mabel Watson	28.00	
Fibre Pots for potted lilies - Decorative Section	11.50	
Petty Cash Withdrawal	39.00	
Royal Horticultural Society - Lilies 1975 books	46.65	
Royal Botanical Gardens - auditorium rental	25.00	
North American Lily Soc. gift membership for Greek Bot. Gardens	7.50	
Hand-painted plates for 1976 show	64.00	
Office supplies and rubber stamps	12.93	
Royal Botanical Gardens, Building Fund donation	500.00	
Transfer to Bonus Savings account	500.00	
Exchange on U. S. cheques	2.75	
Total expenses:		2041.73

Bank Balance, April 1, 1976	980.83	
Receipts 1976	1845.17	
		\$2826.00
Less expenses 1976		\$2041.73
Bank Balance, March 31, 1977		\$784.27

Bonus Savings Account

Balance at March 31, 1976	\$1082.87	
Interest	85.24	
Deposit from General Account	500.00	
Bank Balance, March 31, 1977		\$1668.11

Petty Cash Account

Receipts from General Account	\$ 39.00	
Expenses - stamps, cups, etc.	34.75	
Cash on Hand, March 31, 1977		\$ 4.25

Total Balance : \$2456.63

Bernice Reid, Treasurer

Audited and found to be correct: Fred H. Hayes, William Peebles.

Slate of Officers for the year: April 1, 1977 to March 31, 1978

Honourary president: Dr. Leslie Laking, Burlington, Ontario (appointed by membership)
 President: Charles Gardner, 461 Lexington Crescent, Waterloo, Ontario
 Vice President: Dr. W. D. Evans, 45 Cedar Street, Guelph, Ontario N1G 1C2
 Secretary: Mrs. Ross Martin, Box 81, Binbrook, Ontario LOR 1C0
 Treasurer: Mrs. William Reid, 871 Glenwood Ave., Burlington, Ontario L7T 2J8
 N. A. L. S. Vice President: T. Ross Martin, Box 81, Binbrook, Ontario LOR 1C0
 Directors:

Term expiring annual meeting 1978:

Gordon Brown, R. R. No. 1 Harley, Ontario, NOE LEO
 Mrs. Ian Barber, 336 Sandelewood Rd, Oakville, Ontario L6L 3R8
 Mr. Louis Farina, 7741 Akron Road, Lockport, N. Y. 14094
 Mrs. C. Lighthouse, 3837 Highland Dr., Box 130, Ridgeway, Ontario LOS 1N0

Term expiring annual meeting 1979:

Charles Robinson, R. R. No. 1, Erin, Ontario NOB 1T0
 Dr. David Brunsdon, 1118 Springhill Dr., Mississauga, Ontario L5H 1N3
 Mrs. Beryl Gregory, 84 Maple Ave., Dundas, Ontario L9H 4W4
 Michael Kotyk, 493 Niagara Street, St. Catharines, Ontario L2M 3P4

Auditors: James Esser, 59 Superior Rd., Rochester, N. Y. 14625
 John R. Rutledge, 94 Dunedin Drive, Toronto, Ont. M8X 2K5

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EDITOR'S NOTEBOOK

This issue's column will be abbreviated somewhat due to space. Our show schedule is included with this issue and we are looking forward to another successful two days of lilies and renewing friendships. Do try to come - and bring as many lilies as you can. The show committee will be needing extra hands for the set up on Friday evening and Saturday morning so if you can help do come out and lend a hand.

The season to-date has been one of concern for some of us. The severe winter has taken its toll in some gardens - particularly in the trumpet material - but this has not been general, so we approach this show with some reservations. Late frosts, and dry weather in May has also added to our concerns, so we ask those who can, to please bring as many lilies as possible.

June Fragrance, Goldcrest, Earlibird, Rusty, Gypsy, pumilum and many martagons have begun to show their colours for 1977. They make an impressive opening! A light scattering of 5-10-10 now will help the aurelians and oriental lilies later. Don't forget to give your lilies another feeding after they flower to ensure that your bulbs produce big strong stems and flower heads for next year.

While newly purchased bulbs don't usually arrive from the growers until late September or early October, you can get a head start on transplanting if you are anxious to move some of your crowded clumps this fall. Early September is quite acceptable to split established bulb clumps, and does provide a much longer time for the bulbs to send out new roots before winter sets in. Some of our winter losses, I am sure, were due to just this very reason - late planting and an early freeze-up before roots were established.

Mr. and Mrs. Charles Robinson have invited us to have our picnic at their home at R.R.1 Erin. Their home is located just east of Erin, off Highway 24, on the 10th Line. Their home is on the right side of 10th line, $1\frac{3}{4}$ miles off highway 24. Erin is located between Guelph and Caledon on Highway 24. Maps will be available at the lily show if you require one. We hope to see you there.

RANDOM THOUGHTS OF A LILY GROWER (PART II)

Charles Robinson Erin, Ontario

One lily character that has always interested me is that of leaf and stem colour. In the asiatic group, for instance, there are many examples of lilies having dark red stems and leaves. It is usual for such lilies to have dark red flowers -- the darker the flowers, the darker will be the leaf and stem colour. The red does appear to be a definite correlation between flower colour and stem and leaf colour. It does seem to me that the genes responsible for flower colour are also responsible, in whole or in part, for such colour in other parts of the plant -- leaves, stems and even the bulbs.

At this point I will digress for a moment and turn to *L. candidum*. About ten years ago I carried out many tests using paper chromatography to ascertain if there was any type of pigment in the glistening white flowers. I was ultimately forced to the conclusion that no colour pigment of any kind was present. I also understand that Carl Feldmaier of Germany recently carried out similar tests, and with similar results. Hence, it is well within the bounds of possibility that inhibitors are responsible for the absence of colour in *L. candidum* flowers. Because of this the Madonna Lily has come down through the ages quite unable to form any pigment. However, close relatives of the Madonna lily carry the wide red colour -- *L. monadelphum*, for instance.

At this point, one question arises; if the red or dark red flower colours of lilies spill over to the leaves, can this process be reversed? With this in mind I did manage to acquire a few bulbs of a dark red-stemmed *L. candidum*. This form has always been a rarity in gardens - and in the wild - and is now almost impossible to get hold of. Now ... if the dark red colour is present in the stems then such plants must be carrying genes of that colour. If crossed with the normal *L. candidum* the colour would not be passed along to the flowers of the offspring because of the colour inhibitors present. But crossed with June Fragrance with its yellow inheritance and creamy-yellow flowers, the dark red stem colour might, somewhere along the line, be induced to spill back to the flowers. It could also be tried in another way; The beautiful *L. x testaceum* is the result of crossing *L. candidum* with *L. chalcedonicum*. But no seedlings resulting from this cross, or any backcross etc., have any deeper colour than the bright, light orange red of *L. chalcedonicum*. However, if the cross *L. candidum* (dark red stemmed variety) x *L. chalcedonicum* was to be made it could conceivably produce seedlings having a much wider range of colour, including black red, thus bringing a new dimension to this group.

Lily flowers having papillae have always interested me; perhaps "fascinated" would be a better word to use. To acquire a fuller understanding of the change papillae bring about in a flower just take a look at any of the speciosums then try to imagine what it would look like without the papillae. These latter most certainly give considerable additional character to the bloom. I think that most people would find the flat, smooth tepals considerably less attractive.

Occasionally we find papillae on flowers of asiatic seedlings and in my view such specimens show considerable advancement over normal flowers. It should, of course, be quite possible to incorporate this character into the asiatic group. At the present time there is no literature on this subject and as far as I am aware no research has been carried out. Hence, we will have to start from scratch and learn as we go along. Some three years ago I did make a cross between two asiatic seedlings. Both were siblings of the cross 1166. One was a spotless out-facing yellow, the other a spotless up-facing apricot. Both had flowers heavy with papillae. At this stage it is much too early to make observations except to say that the character is recessive and also that there are possible other interesting genes at work.

Perhaps some of our members who are interested in breeding asiatics might also be interested in developing this character.

(Continued)

Random Thoughts of a Lily Grower (Continued)

Another project I have been interested in is that of pollination. Usually, the procedure followed is to open the flower bud sometime before it would open naturally, remove the anthers, then place an aluminum cap over the stigma and style. Not everybody uses protectors, however, in spite of the fact that it is the only way to ensure the accurate parentage of the resulting offspring. Two or three days later the aluminum protector is removed, the pollen applied to the stigma, and the aluminum cap replaced. The removal and replacement of the cap is not always an easy one and often the reproductive organs are damaged.

Before going further I should point out that the critical time to apply pollen to lily stigmas is twenty-four to forty-eight hours after the flower actually opens. Some lily flowers will accept pollen and set seeds when pollen is applied after the tepals have faded. In the plant world the critical time for pollination varies greatly -- from two to three days before opening to some time after the flower has faded and also after petal drop.

Last year I carried out a simple test. I selected fifteen buds (estimated at two to four days before normal opening), removed the tepals from each one and also removed the anthers. The variety selected was the asiatic Orange Light. Pollen from a seedling known to have sound, fertile pollen was then applied to the stigmas of the selected flowers and the styles covered with a protective aluminum cap. In due course the capsules swelled out naturally and later produced seeds. Unfortunately I failed to make a seed count. However, if we accept this test then it would appear that the entire operation can be carried out at one time, and prior to flower opening and hence at a time when the stigma has had no chance of becoming contaminated by undesirable pollens.

The removal of the tepals was carried out because flower colour attracts both insects and hummingbirds. It is merely an extra precautionary measure.

Many similar tests with various types of lilies will have to be carried out before this method can be approved. If subsequent tests verify the results of this first one then it would seem that the best method to use when crossing lilies is to (1) select flower buds one to three or four days before opening and remove tepals and anthers. (2) Place the required pollen, and plenty of it, on the stigma, then cover with an aluminum cap. Many amateur hybridists do not bother to protect the stigma to prevent contamination, but the procedure can be carried out just the same. The pollen will remain on the stigma until such time as it becomes receptive and it can then proceed to send the pollen tube down the style.

One character which I believe we should pay more attention to than we presently do, and have certainly neglected it in the past, is the colours on the reverse side of the tepals. We have judged lily flowers merely on their "face Value" for too long. But we have now reached the stage in lily development where we can no longer tolerate lilies with a beautiful face colour while having a far from desirable reverse, possibly stained with green or an unattractive dull red, or both.

To rectify this situation is a simple matter for any breeder. It merely consists of selecting better breeding material for use as parents -- plants having flowers with both sides of the tepals free from contaminating colours. The red colour usually seen on the reverse sides of the tepals is derived from the tepal ribs. Normally this colour would be confined to the ribs, but due to some small genetic malfunction it has escaped and becomes spread over much of the tepal reverse. Green colouration, however, is something quite different. Prior to opening the lily buds are quite green; the green pigment, of course, is chlorophyll, a very complex chemical substance. As the flower approaches the opening date the green chlorophyll, in a typical impulse-response action, begins to disappear; in fact, the disappearance is quite rapid. However, in some cases the green pigment does not wholly disappear; some remains to contaminate. I am not sure what really happens to the chlorophyll -- whether there is a complete breakdown of the chlorophyll molecule or whether it undergoes a chemical change and is used in the synthesis of the flower pigments.

TALKS TO LILY GROWERS

(Taken from the Canadian Hort. & Home Magazine, June 1940 issue, E.O.Clement, editor)

The pessimist says the lily belongs to the onion family, but the optimist says the onion belongs to the lily family. The natural order Lilaceae is a large one and included more than 1,200 species. Besides many beautiful flowering forms, there are edible ones, such as Asparagus. Lilies were among the earliest plants to be sprinkled on the earth and are native to the North Temperate zone.

According to the poets, lilies denote whiteness and purity, but there is a great variety of shape, size and colouring exhibited among the various species. The genus *Lilium* is divided into several sub-genera. Among these are *Eulirion* and *Cardiocrinum*.

EULIRION Sub-genus

The *Eulirion*, or true, lilies are characterized by perennial scaly bulbs and are the only lilies dealt with in this column, as nearly all garden lilies fall into this class. *Eulirion* are divided into four sections which are:

- (1) *Leucolirion* (lejos, white), as *L. regale* and *L. candidum* with trumpet-shaped flowers, usually white.
- (2) *Archelirion*, as *L. auratum*, with flowers wide open and horizontal-perianth segments widest below the middle.
- (3) *Pseudolirium*, as *L. dauricum* and *L. croceum*, with flowers wide open, erect, red, orange or yellow.
- (4) *Martagon* as *L. henryi* and *L. martagon*, or *Turkscap*, with nodding flowers, perianth segments strongly reflexed; red, orange, yellow, white, pink or purple. The leaves are often in whorls on the stem.

THE CARDIOCRINUM sub-genus

The sub-genus *Cardiocrinum* (Kardio - heart) lilies are characterized by broad heart-shaped leaves and a scaly bulb which dies after flowering and producing off-sets. *L. giganteum* in this group is a lily for the advanced amateur, who is willing to give it the necessary attention, but is not common in Canadian gardens.

(Editor's Note) The four sections or types of lilies in the sub-genus *eulirion* (true lilies) are represented in the seal of the North American Lily Society.

Submitted by: Parry A. Thompson
Parkhill, Ontario

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O.R.L.S. SLIDE COLLECTION

Fred Hayes, chairman of our Slide Collections, would like to start a new series based on previous show winners. If you could provide the Society with originals or duplicates (or originals which we could duplicate), to upgrade our collections it would be much appreciated. The following types of slides would be appreciated:

- (a) Major award winners, or selected show specimens taken at random at our O.R.L.S. or N. A. L. S. shows
- (b) Overall views of the exhibitions with year taken
- (c) Artistic arrangements featuring lilies taken at the shows, with class description if it is available.

This could prove to be a most valuable collection for the Society, and would certainly make a most interesting slide programme. If you can assist in establishing this new venture, please contact Fred H. Hayes, 1222 Bellview Street, Burlington, Ontario

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Don't forget to pay your 1977 dues. LAST NOTICE!

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includes more than 1,200 species. Besides many beautiful flowering forms, there are
edible ones, such as asparagus. Lilies were among the earliest plants to be cultivated
on the earth and are native to the North Temperate zone.

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variety of shape, size and colouring exhibited among the various species. The genus
lily is divided into several sub-genera. Among these are Eulirion and Cardocrinum.

EULIRION sub-genus

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the only lilies dealt with in this column, as nearly all garden lilies fall into this
class. Eulirion are divided into four sections which are:
(1) Liliopsis (lilies, white), as L. regale and L. candidum with trumpet-
shaped flowers, usually white.
(2) Anemolirion, as L. auratum, with flowers wide open and horizontal-perianth
segments widest below the middle.
(3) Pseudolirion, as L. dauricum and L. croceum, with flowers wide open, erect,
red, orange or yellow.
(4) Martagon as L. henryi and L. martagon, or Turkscap, with nodding flowers,
perianth segments strongly reflexed; red, orange, yellow, white, pink or purple. The
leaves are often in whorls on the stem.

THE CARDOCRINUM sub-genus

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THE NEWSLETTER OF THE
ONTARIO REGIONAL LILY SOCIETY
P. O. BOX 81
BINBROOK, ONTARIO LOR 1C0

Submitted by: Betty A. Thompson
Parkville, Ontario

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