



# *Canadian Prairie Lily Society*

## *Newsletter*

December 2009

Number 126

### *President's Message*

At the start of writing this message (late Nov) Saskatoon was bright and sunny with more than reasonable temperatures for this time of year. This was really great considering the cold, wet, snowy weather in October. With the exception of the martagon bulbs all the bulbs I bought this fall are in the "fridge crisper" and will remain there until April 2010. I will pot them up then! This plays havoc with my garden lists and maps for 2010. Winter is a great time to check through your garden lists and maps to see what can be added to or what changes you want to make in your 2010 garden and there is always room for one more lily! Keep checking the mailbox for catalogue with lilies – again looking for just one of two more! Take some time to sort through your photos of lilies taken last summer and get them ready for the Show in July 2010. This is an easy way of showing your lilies. Also, you may want to read up on lily problems- Botrytis, Colour-Breaking Virus (CBV), Lily-Leaf Beetle and more. **Weather-breaking news** - Dec 12 bright, sunny, -30 C. with wind chill down to -40C., not much snow cover at least in my garden- not good news. Such is life on the prairies. What a difference a week or so can make!

CPLS had a busy successful year. The success of the society depends on the volunteers who make the activities possible. I would like to extend a special thanks to the committee chairpersons – Art Delahey and Ted Markus (Gardenscape'09), Barbara Adams-Eichendorf (Annual Lily Show'09), Stan Dunville, Art Delahey (Treasurer), Ted Markus and Natalie Threlfall (Lily Plots'09), Ted Markus (Bulb Sales'09), Ed Driver

(Website'09 & Newsletter'09), Leona Domshy (Volunteer Organizer'09) and Natalie Threlfall (Historian'09), and Sharon Newton (CPLS Secretary/Newsletter Mail out) for taking on these activities and making them successful. Also a special thank you to all the members who gave their time to manage our sales, show, and information tables; digging bulbs, packaging bulbs and printing labels for the bulb bags and countless other jobs that need to be done to make our events successful. For more detail on member participation see the "Volunteers" article in this newsletter.

An era came to an end this fall with the closing of the CPLS/McKercher Lily plot. The CPLS executive would like to extend their thanks to Don McKercher for the privilege of having this plot for so long. For a number of years CPLS was able to have a lily plot on the McKercher Farm. Don and his late wife Shirley were gracious in letting us use a large portion of the 'vegetable' garden to grow lilies for CPLS use. The original lilies were planted by Andy Dingwall – a story too long for this message. I hope the full story of the CPLS/McKercher Lily Plot will be told in a 2010 newsletter!

At this time I would ask members to seriously think about giving some time to take on positions in the executive and directorship area. It takes a lot of organizing to keep a society going and new people are always needed to help in this endeavor. The position of Vice-president has been open for a number of years and really should be filled – consider

it. It is a great chance to learn more about the society and lilies in general – only four meetings/year!!

CPLS is looking forward to another eventful year in 2010 – Gardenscape'10 (March), Annual General Meeting (April), Annual Lily Show (July) and Bulb Sales (September). There will be more information regarding these events in upcoming newsletters. If you can spare sometime to help out with our activities it would be greatly appreciated.

***Best wishes to you all this Festive Season. Great***

***Gardening in 2010! MED.***

## ***MEMBERSHIP RENEWALS***

For all members whose memberships expire December 31, 2009, and are not renewed, the last issue of the newsletter will be the December 2009.

If your mailing label is **HIGHLIGHTED** it is time to renew! To renew of your membership please use the renewal form included in your newsletter. Don't forget to include you email address if you have one.

### ***From Your Editor***

Once again your editors of this newsletter are requesting articles, letters etc, from the membership to help make the newsletter an informative one. We know that many of you have a good deal of knowledge to share with your fellow lily growers about growing, showing and/or hybridizing lilies. The one fast and easy way to share this knowledge is through this newsletter. So get your thoughts on paper or send them flying through cyberspace so we can share and enjoy your experiences with lilies.

If you have any questions regarding lilies you would like answered please send them. We will do our best to help you out.

We would also appreciate hearing from you about what you would like to see/read in your newsletter.

All articles, letters, etc., will be considered for publication. Please include your name and complete address with your article. Newsletter **DEADLINES** are February 15, May 15, August 15 and November 15.

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## ***Volunteers Are the Life of CPLS!!!!***

Volunteers are the life-blood of a society. At this time I would like to thank all the members who made CPLS events possible in 2009. As you read through the list you will notice many members have made the list several or more times. I hope that those who have not made the list in 2009 will find sometime to help out in CPLS activities in 2010 your participation is needed and always appreciated. I hope I haven't missed anyone, if I have please let me know. [Margaret Driver].

### **Gardenscape 2009**

#### Chairpersons

Art Delahey and Ted Markus

#### Set-Up/Take Down

Ted Markus, Art Delahey, Stan Dunville, Sharon Newton, Margaret Driver, Phyllis Elder, Dorothy Bird

#### Information Desk

Stan Dunville, Sharon Newton, Margaret Driver, Judy Toews, Mary Jean Roy, Gil Joanis, Judy Chiki, Karen Sawchyn, Peter Lehman, Ramona Gignanc, Suzanne Beaubien, Linda Ewen. Natalie, Threlfall, Sandy Parsons, Helen Johnson, Bonnie Lawrence, Carmel, Dodd, Frank Dodd, Donna Cutler, Helen Osback, Leanne Rempel, Fran Nutter, Alice Pitka, Karen Zunti, Phyllis Elder, Dorothy Bird.

### **CPLS Annual Lily Show**

#### Chairperson

Barbara Adams-Eichendorf . A thousand and one things are done to get the show in the tables!

#### Show Judges

Allan Daku, Barbara Adams-Eichendorf, Margaret Driver

#### Clerks

Sharon Newton, Leona Domshy, Luella Gatzke

#### Volunteer Schedule

Leona Domshy

#### Photography

Ed Driver

#### Show Set-up & Take-Down

Natalie & Gerry Threlfall, Ed & Margaret Driver, Luella & Irwin Gatzke, Art Delahey, Stan Dunville, Ted Markus, Sharon Newton, Barbara Adams-Eichendorf

#### Information Desk

Dorothy Bird, Gil Joanis, Ted Markus, Mary Jean Roy, Hilda Noton, Al Rung, Cec Kachkowski, Marg Kennedy, Liz Delahey Karen Sawchyn

### **CPLS Bulb Sales**

#### Chairpersons:

Art Delahey and Ted Markus. A thousand and one things are done by these two to get the sale on the road and into gardens on the prairies and more!

#### Commercial Orders:

Margaret Driver, Barbara Adams- Eichendorf, Art Delahey

Bulb Donations: Kay Fetter, Barbara Adams-Eichendorf

Bulb Sale List Preparation: Margaret Driver

Bulb Package Labels: Karen Sawchyn, Ted Markus,

#### Digging, Packaging bulbs, Etc.....

Stan Dunville, Art Delahey, Ted Markus, Gerry & NatalieThrelfall, Hilda Noton, Luella & Irwin Gatzke. Sharon Newton, Margaret Driver

Mail Out Orders: Ted Markus

Set-up & Clean-Up for Public Sales: Ted Markus, Art Delahey, Stan Dunville, Sharon Newton, and members working the first and last shift of the sales.

Volunteer Worker Schedules: Leona Domshy

Information Desk: Phyllis Elder(x2), Janice Peace, Cec. Kachkowski, Bonnie Lawrence, Louise Cook,

Mary Jean Roy, Helen Johnson, Darlene Malysh,  
Ramona Gignac, Sandy Parsons, Margery Kennedy,  
Gail Church, Leanne Rempel, Natalie Threlfall, Judi  
Chiki, Stan Dunville, Hilda Noton

### Red Lily Beetle Watch

Northern Region Coordinator: Bonnie Lawrence

### CPLS Website

Webmaster: Ed Driver

### Newsletter

Editors & Publisher: Margaret & Ed Driver

Labels & Mail out: Art Delahey & Sharon Newton

### Membership List

Art Delahey & Margaret Driver

### Lily Plots

Art Delahey, Stan Dunville, Ted Markus, Natalie  
Threlfall, Gerry Threlfall, Ed Driver

## ***Is There a Virus in Your Lily Patch ??***

This article will attempt to – define a virus, list the various viral agents that can infect lilies, describe symptoms of viral disease in lilies as well as how viral disease is transmitted in lilies and lastly what can be done to control viral disease in the lily patch.

**VIRUS:** a very tiny particle – too small to be seen with a light microscope. It is an infectious agent that is capable of growth and replication **only** within a **living cell** (plant or animal). Once the particle invades the living host cell it takes over the cell's 'replicating machinery' which then produces viral particles. These particles break free of the host cell, move through the host's body and infect more cells.

: Outside the host's body a virus exists as a particle of DNA or RNA surrounded by a protein capsule. In this inert state each viral particle has a specific shape, size etc. but can only be seen with an electron microscope. Viral particles can be identified using the electron microscope (size, shape) and immunological reactions (chemical characteristics)

: Viral particles can invade **all** parts of the lily – scales, bulbils, leaves etc... However, viruses are

generally **not found** in the meristematic shoot tips (a region containing actively or potentially actively dividing cells). Virus-free plants can be produced by tissue culture of pieces of meristem tissue.

: Viruses **do not** persist in the ground or in dead tissue.

**VIRUSES INFECTING LILIES:** There are approximately 400 plant viruses known. The good news is there are only three viruses that are important when it comes to infecting lilies. These viruses are

**TBV: Tulip-Breaking Virus** This virus is responsible for the beautiful coloration in the 'Rembrandt' group of tulips (colour-streaked blooms). However, it is very destructive in lilies resulting in the breaking up of colour in the flower.

**CMV: Cucumber Mosaic Virus** This virus has many hosts both cultivated plants and weeds. Chickweed/*Stellaria media* and Shepherd's Purse/*Capsella bursa pastoris* are two weeds common in the garden and well worth removing when ever possible.

**LSV: Lily Symptomless Virus** This virus is very common in lilies and as its name suggests there is often **no** sign of disease. It becomes a serious problem when the lily becomes infected with one of the other common viruses.

### SIGNS/SYMPTOMS of VIRAL DISEASE

There are a variety of symptoms associated with viral diseases in lilies. These symptoms include:

- Irregular mottling/flecking of leaves
- Deformed growth
- Reduction in plant vigour – size, height, bud count
- Colour-breaking/streaking in flowers and leaves
- Brown concentric ring patterns on scales

A number of these symptoms unfortunately are also associated with problems that are **not** caused by viral infection. Poor growing conditions such as – nutrient imbalance (e.g. Chlorosis), soil pH extremes, as well as herbicide damage, frost damage, root damage can cause a combination of the above listed symptoms

It is important to eliminate cultural and weather – related damage from viral infection before destroying your lily patch. Monitor your patch carefully each year noting weather, application of fertilizer and /or herbicides, etc. Once you are familiar with what is going on in your patch then consider viral disease.

### VIRUS VECTORS

A **vector** is an agent that can transmit a disease or an infection. Vectors include wind, rain splash, infected tools, infected soils, man, insects, mites, nematodes etc.

In the case of the viruses that infect lilies **aphids** are the primary vectors. Aphids are also known as 'Plant Lice' or 'Greenfly'. Aphids are small (but still easily seen with the naked eye) plant bugs that feed by sucking plant juices. The mouthparts (stylet) become infective as soon as they enter an infected lily plant, it is not essential for the aphid to draw up the viral infected plant juices. There are sufficient viral particles coating the stylet to make it infective to the

next plant once the aphid attempts to feed again.

Aphid populations are greatest in mid-May to early June then again in August and September, possibly into October if the weather is suitable.

Symptoms of disease in infected plants may not appear until the next year. In the case of Tulip-breaking Virus (**TBV**) if the infection occurred in early spring the flowers that appear in summer may show the effects of the infection.

In colder climates, coastal regions and/or in windy locations aphid populations are lower and so are viruses the aphids vector.

### CONTROL of VIRAL DISEASES

All lily viruses are transmitted by aphids and can be treated as one disease. The disease can be controlled not cured.

A combination of actions can be employed to control the spread of lily virus –related disease:

Remove infected plants as soon as viral disease is diagnosed. Remove/dig-up **ALL** parts of the infected plant and discard (Do Not Compost). A **careful** application of "RoundUp" (glyphosate) to bulb and off-shoots still in the ground will destroy them without uprooting companion plants.

Grow *Lilium lancefolium* and *L. x hollandicum* stock ('Typhoid-Marys' - susceptible to viral infections) in isolation from other lilies.

Select/Grow virus-free or virus – resistant lilies when ever possible.

Avoid planting virus-host plants like tulips (especially 'Rembrandt' types) in among the lilies.

Control aphid populations

Grow lilies from seed.

Disinfect cutting tools when gathering lily stem. There is the possibility of transmitting virus from a diseased stem to a healthy one – the plant juice from the diseased stem can infect the next stem cut.

### References:

1. Lily Disease Handbook. Edward A.

McRae. North American Lily Society.  
1987.

2. Lilies. A Guide for Growers and  
Collectors. Edward A. McRae.  
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Margaret E. Driver. 2009.