



"Niagara Rhodo" Newsletter of the The Niagara Chapter, Rhododendron Society of Canada February 2010

Our Purpose: We are a non-profit organization whose aim is to promote, encourage and support interest in the genus *rhododendron*.. **Our goal is to encourage gardeners to grow and appreciate these plants, by providing educational meetings with knowledgeable speakers, access to topical publications and hosting joint meetings with other chapters.**

Inside This Issue:

1. Reflecting on meeting of February 7, 2010
2. Kevin Kavanagh - Exploring hardiness
3. Rhododendron Hardiness by Paul Chafe
4. Winter Snow Damage & What to do?
5. Conventions – Annual ARS, Long Island; 75th Anniversary, German Rhododendron Society; 50th Anniversary of Great Lakes Chapter, ARS.
6. Membership Matters

Word of Caution

By becoming a successful grower, the reader will be exposed to a contagion for which there is no cure. Once infected with an appreciation of rhododendrons and azaleas most gardeners spend a lifetime collecting these most beautiful of all plants.

H. Edward Reiley

President's Note

Since our theme for this newsletter is hardiness, it is only fitting that I comment on the Hardiness Factor for Rhodo Niagara members. Firstly, Niagara Rhodo members are selecting plants that are not indigenous to this region and are dedicated at growing them successfully. Secondly, since few of our members live in the tender fruit belt (below the escarpment), our mildest climate zone, most of us are even further pushing the envelope. We would like to think that we have micro climates that are more hospitable.... Then, we contend with wind, major snow storms, ice storms, summer drought, and other adversities. Finally, we branch out to take on companion trees/plants, such as magnolias, that further challenge us. However, our persistence pays off. We have a glorious display of color in our gardens that increases as our gardens mature. So if you were to rate Ontario gardeners by the Hardiness Factor, Rhodo and Azalea gardeners would rank near the top of the list. You, our members, are in good company!

We had a great turnout, some fifty people, for Ron Rabideau's talk on hybridizing and his experience on a plant expedition in Northern India. Some of the bridges looked like they were out of an Indiana Jones movie.

We hope to see you at the March 7 meeting with Kevin Kavanagh.

Remember guests are welcome, so bring your gardening friends. Novices are especially welcome - what better way to speed them down the learning curve, than by attending our meetings.

Sondra Meis

Reflections on Meeting of Sunday, Feb. 7, 2010

Ron Rabideau's talk, on February 7, *In Search of the Best*, lived up to its title. Ron told us about his work at RareFind Nursery, described what he thought were the most interesting and useful plants for growers in our area and explored new varieties being developed and parent plants most useful to produce the colour, leaf form and hardiness characteristics that are much sought after by modern hybridizers. Ron's description of his unique exploratory trip into the rarely explored – by western plant collectors – northern mountains of India bordering on China, enthralled the audience of 50+ gardeners. Ron's description focused on the remoteness of the area, and provided very welcome insights into the cultural side of travel for plant hunting in remote areas.

On March 7, 2010 we turn to an equally interesting topic, exploring what plants may be grown (in this area of Ontario) that are considered non-viable locally.

Sunday, March 7, 2010, 2 P.M.

KEVIN KAVANAGH, **Pushing the Zones: Exploring Hardiness in Southern Ontario.** Vineland Research & Innovation Centre, Rittenhouse Hall, Victoria Avenue, Vineland. See "Kevin Kavanagh" on Page 2 and on the web at <http://www.rhodoniagara.org/kkbio.pdf>

Sunday, April 11, 2010, 2:00 P.M.

SLIDE SHOW, DESCRIPTION, COFFEE, SWEETS & DISCUSSION regarding (1) all varieties to be available at the Annual Plant Sale and (2) Critical issues in growing rhododendron successfully. Vineland Innovation & Research Centre, Rittenhouse Hall, Victoria Avenue, Vineland.

Saturday, April 17, 2010, 9:00 A.M.

ANNUAL PLANT SALE. Vineland Innovation & Research Centre, Former (HRIO), Victoria Avenue, Vineland Station. For preliminary information on available varieties see

<http://www.rhodoniagara.org/index2.htm>

Saturday, May 15, 2010. 10 A.M. to Noon

Garden Tour, Members Only: Tom Laviolette's private rhododendron gardens by 16 Mile Creek near St. Catharines.

Saturday, June 5, 2009. 10 A.M. to 2 P.M.

P4Ms Plant Sale for Members only. Nettle Creek Nursery, Hollow Road, Fonthill, ON. See

<http://www.rhodoniagara.org> for varieties available this year.

Kevin Kavanagh

Pushing the limits - Exploring Hardiness



Kevin Kavanagh has worked in the field of conservation for most of his professional life. He continues to work part-time as the Manager of Conservation Internship Programs for the Nature Conservancy of Canada (NCC). Prior

to joining NCC, he worked for 15 years with World Wildlife Fund Canada (WWF). While at WWF, he led the conservation science work to help expand Canada's parks and protected areas system and directed programs for the recovery of Canadian species at risk.

Our speaker, the owner of South Coast Gardens situated along the north shore of Lake Erie in

southern Ontario, began gardening in his youth in Quebec's Eastern Townships. Surrounded by forests and wetlands he was always eager to explore new habitats. He endeavoured to collect seeds of his botanical discoveries with the hope of growing them on at close range where he could observe them year round. Consequently, his parents' yard quickly filled up with a diversity of native trees and flowering shrubs. An interest in the botanical riches of more southern regions set in an early age as he struggled to find ways to successfully over-winter species such as broad-leaved Rhododendrons – in a location where winter temperatures regularly dipped to near – 40C!

Now, designing gardens for clients in the comparative warmth of Norfolk County, Kevin continues to enjoy testing the hardiness of plants from the deep south to assess their suitability for local gardening. Carefully siting plants in microclimates and offering modest winter cover, he has succeeded in growing such southern specialties as Southern Magnolia (*Magnolia grandiflora*), Laurel Oak (*Quercus laurifolia*) and Loblolly Pine (*Pinus taeda*) at his nursery location. As well, he is currently testing the local suitability of nearly 150 varieties of Rhododendrons and Azaleas and 50 varieties of Magnolia.

In the course of assessing plant hardiness, he has developed some simple techniques to help these species survive a Canadian winter and will illustrate these methods in his presentation.





Male Flowers – Loblolly Pine

See also: <http://www.rhodoniagara.org/kkbio.pdf>

Many gardeners confess that they often look southward to milder gardening zones with some envy at the myriad of tender plants seemingly unsuitable for their own backyard. Applying his experience with gardening in Norfolk, Kevin will discuss some of the native species from neighbouring U.S. states that are well adapted to Ontario gardens. His presentation will also highlight a selection of sub-tropical species ideally suited to outdoor containers that can help to add ‘a touch of the south’ to any garden design in our warmer months.

Rhododendron Hardiness

by: Paul Chafe

A recent flurry of email activity on the yahoo Rhodo chat-line has spurred me to write a little bit on plant hardiness, with a focus on *Rhododendron*. Here, I will give what, in my opinion, cold-hardiness entails, and touch briefly on different aspects of cold-adaptation. First I give a brief introduction to the zone system, and then I go into how plant hardiness is established, different types of hardiness, and then give my own opinion on hardiness.

Whenever you look through your favorite guide-book or most recent plant catalog the author attempts to give an explanation of the cold that a certain plant can handle. Generally these ratings are given as the USDA zone. Briefly, the USDA growing zone for a specific area is based on long term average extreme low temperature for a given period of time.

The zones are designated in degrees Fahrenheit (unfortunately these zones are based on the archaic imperial measurements) with each 10 degrees of temperature change representing a different zone (e.g. zone 5 would have an average winter minimum between -10 and -19.9 degrees Fahrenheit; zone 6, most of the Niagara region, has an average winter minimum between -9.9 and 0 degrees Fahrenheit). Now, the original Canadian hardiness zone map also employed this same formula to divide Canada into similar zones. However, recently, to add to the confusion, the Canadian zone map has adopted a rather complex formula to determine the growing zone for a particular region. I’ll spare the details of this formula but I will say that, for instance, my own garden near Kingston is a Canadian zone 5b, while the long term weather data indicates that the garden is a much colder 4b. I’m not going to say that the Canadian system is better or worse, just perhaps that it should have remained integrated with the USDA system!

One additional quick comment is that I would love to see the end of the use of the terms H1, H2 etc. This system, first thought of for use in Britain, is entirely useless when applied to continental, North American, type climates. Best to let this system follow the Passenger Pigeon into extinction.

Have you ever wondered why different authors often give very different hardiness numbers for the same species or hybrid? The reason for this is often due to a lack of testing a particular plant in colder climates.

This critical temperature will differ according to several factors including length of freeze, time of year of freeze, establishment of the plant, the climate in which the plant is growing, and, finally, the genetic make-up of the plant in question. The floral buds will also be killed by such a freeze, but the plant itself may not (See Figure 1). I choose this level of damage since it has the most impact on the plants horticultural merit.

As we all know, there are many factors beyond cold that can impact plant damage. Location, microclimate, soil conditions, length of freeze, general health of the plant, and even summer conditions (as well as other factors) can and do all impact the performance of a plant, and can mean the difference between minor leaf damage and stem-tip die back. For an example of major stem-tip die back see figure 1. This plant is obviously not much use ornamentally, but there is a lack of broad leaved

evergreens that can take severe cold, and I feel that many of these have been improperly tested in cold climate conditions. Besides, this (Figure 1) was a first year plant and may gain additional hardiness if it's able to gain size and extend its roots to access water in the winter.

In a recent edition of this newsletter (December 2008), several established horticulturalists gave their interpretations of what 'hardiness' should refer to. Personally, my favorite of these is "adaptability to weather", both in terms of absolute cold AND in terms of temperature swings. A plant that breaks into growth at the first sign of spring-like weather will be of little use ornamentally. This breaking of dormancy will not only cause damage to the expanding buds (and may cause a complete or near complete failure in bloom), but also, and more importantly, can damage newly expanding foliage leading to unsightly new growth and ruining the appeal of this plant for the season at least. Generally, however, floral buds are more susceptible to spring frosts than foliage.



Figure 1: *Ilex opaca* first year plant resprouting from damaged stems after exposure to -28C. The large stem in the centre of the photo indicates how much smaller the plant is than when it was planted.

Other complicating factors include different measures of hardiness (bud vs. foliage, more on this later), plant location, plant establishment at time of cold event, cold acclimatization, among others. For example, and no reference will be given here to avoid bias, a popular

book on *Rhododendron* lists the following cold tolerances for species long grown in Niagara and even colder areas: *R. yakushmanun*, zone 8; *R. brachycarpum*, zone 6. You can imagine that if these commonly cultivated plants can have erroneous cold tolerance information, that problem must be magnified in less-common species or hybrids.

Often an author will specifically mention that their cold tolerance ratings are based on either flower bud, or foliar damage thresholds. To my mind *Rhododendron*, especially the larger leaved elepidote species, are foliage plants which happen, once a year, to have attractive flowers. Now, I know that some people will disagree with me on this, but I will defend my point. I feel it is wrong for an author to list a *Rhododendron*'s hardiness based on the temperature that will kill most of its floral buds for the upcoming spring. This is because for 11/12ths (or even more) of the year the most important aspect of a *Rhododendron* is the leaves.

Unlike flowers, the leaves provide year round interest, and if you still disagree with me (and most will), when it does come to the brief flowering season, the leaves are still important to control the often outrageous displays that our hybrids put forth.

In terms of horticultural importance, I think that the second most important aspect of a garden *Rhododendron* is the growth form (bush, tree, leggy, bushy, etc.), followed by interesting bark, since these aspects are both important year-round. We then have interesting new growth in the form of temporary leaf coloration, which can last months at a time; and then, finally, and last of all, are the flowers.

Reading back over this I realize that it may seem that I think that the flowers are not important at all, which is not true. They are important for a garden plant. I merely wanted to point out that they play a relatively small role in the year round garden, and, more to the point of this article should not be the main factor in evaluating hardiness. If, however, you have two similar plants one of which flowers after exposure to -30C and one which does not, it doesn't take a genius to know which one to keep!

So, what do I think that winter hardiness should refer to? For *Rhododendron*, I'd prefer it if we would normalize the meaning of cold-hardiness to indicate the approximate low temperature that will be expected to defoliate, i.e. kill the foliage, of a plant.

The idea of plant hardiness is a difficult thing to quantify. I do feel that the most important aesthetic aspect of the plant should be used to determine its hardiness, and that

hardiness should not be given as an absolute value unless the plant has been adequately tested at the temperature listed.

For *Rhododendron* there are many ornamental aspects that contribute to the horticultural merit of a plant. Among the most important of these is foliage, and for this reason foliar damage should be the defining trait used in assessing *Rhododendron* hardiness. The reason that many grow *Rhododendron* is because of their lovely, but short-lived, flowers. The flowers are prone to injury by more than just extreme winter lows, both fall warmth and spring frosts can kill or damage flowers which can lead to inaccurate ratings of hardiness. I'm not sure what the take away message here is... Perhaps it is to try plants that you're not sure will be hardy, because hey, you never know!

"Paul Chafe lives in Toronto and gardens in USDA zone 4b/5a near Sydenham, Ontario, just north of Kingston. He has recently earned an M.Sc. in biology from York University and is currently pursuing a Ph.D. in the same field. Paul is interested in broadleaf evergreens, particularly those that may be hardy or have hardiness bred into them so they may grow, and their foliage may be appreciated, under more severe conditions. He has been a member of the Niagara chapter of the ARS since 2008, and is actively involved in amateur traditional plant breeding techniques in many plant groups including Rhododendron."

From the Editor:

Paul Chafe is a very astute horticultural observer. We agree with him there is nothing more lonely in appearance than a single rhododendron or azalea. Indeed, as individual shrubs, they bloom for a very short period of time and then tend to appear lost and



forlorn for the remainder of the year. But, cultivars massed in groups, determined by blooming time, and individuals comprising groups selected for different blooming periods, will provide an extended blooming season that in some areas may start in April and continue to the end of June. Plants selected for their growth habit and foliage quality provide pleasure throughout the year.

Winter Attacks on Rhododendrons and Azaleas

A recent exchange among rhododendron growers included the phrase, *"I survived the blizzard of 2010, but will my plants?"* On February 8, 2010, Don Hyatt wrote from his beautifully planted property in Northern Virginia, *"I finally dug my way to the street edge late this afternoon and we have another major storm due tomorrow, at least 12 more inches of snow. After receiving almost 2 metres of snow over a period of 2 weeks I wish the snow had gone to Vancouver. They need the snow! Here is an image of portion of my garden as it looked on tour for the 2009 ASA Convention last May. The other is essentially the same shot I took yesterday in the snow. Notice the marked difference in height of my azaleas. All the azaleas in our area have been flattened by this heavy, wet snow. I have no idea what to expect after the thaw, assuming it does come eventually. We are anticipating a lot of breakage. At least the deer don't have much to browse on right now."* Don provided the following photographs, including the third photo below which show Caroline covered with snow, to show the impact of the snow on his carefully tended garden.



It is clear from these photographs that the azaleas have lost their vertical dimension.

Many of us extol the virtues of snow cover as a wonderful protective mechanism against desiccating wind, winter sun and dry cold, snow cover. Yet the heavy wet variety of snow, that loads branches to the breaking point or that flattens entire plants can potentially erase decades of growth in a very period of time.



What should a gardener do when faced with this type of situation?



The unanimous answer among those who commented was do nothing. Wait until spring and then carefully assess the state of your plants.

Many of the flattened shrubs may well respond by springing back slowly as the load disappears. Others may have stems that suffer compression damage and will, over time die-back.

Sally Perkins, an expert botanist, writes, "damage to rhododendrons and azaleas can be more subtle than just breakage, especially with old deciduous azalea wood. We have noted that, if they don't break, the prolonged bending damages the vascular tissue enough that they only partially recover. Perhaps this is the reason that in the mountains it's uncommon to see really thick old wood on the natives. I am confident that 'Caroline' will take a hit but recover well after pruning".

While our friends in the Washington DC area lament the disastrous winter of 2010, the people at *Le Jardin Botanique de Montreal* revel in the snow they receive to protect the more than 1000 cultivars and specie growing in the [Leslie Hancock Rhododendron Garden](#).

A short description follows: "Tucked behind a wall of conifers protecting it from chilling winds, a secret garden projects a very southern feeling. It was named after Leslie Hancock (Founder of Woodlands Nursery, in Mississauga), an avid collector of rhododendrons, who introduced many new cultivars and helped create the Montréal Botanical Garden's collection of heathers.

As these plants are not really suited to Montreal's cold climate, they are sheltered by this wall of trees. The snow piles up and protects them from frost. And they repay their gardeners in spades in mid-May every year, when the foamflowers spread a white carpet to complement the bright accents of Japanese azaleas. Slightly later, in early June, the rhododendrons burst into bloom, a perennial concert joined by heather and wintergreen. In fact, there are no annuals at all in this garden, with the exception of a few pansies planted in the spring to brighten up the flower beds."

2010 Conventions

American Rhododendron Society Annual Convention

May 14 – 17, 2010, **Holiday Inn at MacArthur Islip Airport, Ronkonkoma, Long Island New York.** For information go to their web site: <http://www.nyrhododendron.org/2010.html>
Be sure to scroll down to the bottom of the page.

75th Anniversary Celebration German Rhododendron Society.

May 18 – 20, 2010, **Swissôtel, Hillmannplatz 20, 28195 Bremen - Germany**
http://www.hawaiiwireyaars.org/documents/International%20Symposium-Flyer_engl%2030_10_2009.pdf

What a fabulous collection of speakers!!

Great Lakes Chapter, ARS 50th Anniversary Celebrations

Mark Your Calendar, Save The Day
A Celebration of Rhododendrons
Holden Arboretum May 22, 2010
Plant Auction - Social Hour on the terrace
Dinner, Holdens's Lantern Court Georgian Colonial
Special Speaker
Visit David G. Leach Research Station (Sun.5.23.10)

For more information: apizzino@roadrunner.com



Membership Matters!



To qualify as a member of the Niagara Region Chapter-RSC and to be eligible for (1) the 10% discount on plant sales at the Annual Plant Sale on April 17, 2010, (2) Advance mail-in order for the Annual Plant Sale, (3) The Garden Tour on May 15, 2010 and (4) The P4M sale on June 5, 2010, membership fees must be paid up before March 8th, 2010.

Is your membership up to date? *Don't recall?*

Contact Lillie Haworth at 905-945-2433
or at ljhaworth@sympatico.ca

The benefits of a \$5.00 local membership (RSC)

1. Newsletters/notices sent by email.
2. 10% discount at the Annual Spring Plant Sale.
3. Advance notice of plants available.
4. Ability to pre-order for the Annual Plant Sale.
5. P4M (Plants for Members) available only to members.
6. Participation in tours of private gardens.
7. Newsletters mailed to those so requesting (\$10 membership fee).

Membership in the American Rhododendron Society (\$35.00 CDN) provides all the above benefits as well as receiving the quarterly *ARS Journal*, participation in the seed exchange and other benefits through the ARS office i.e. discount on books, eligibility to attend conventions.

Plan to renew if your membership has expired ~ March 7 meeting or by sending your fee before that date to: Lillie Haworth, 4 Deer Park Court, Grimsby, ON, L3M 2R2.