



NEWSLETTER OF THE SEATTLE RHODODENDRON SOCIETY

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October Meeting

October 7, 2009

Bill Heller presents
"The rhododendrons
of Emu Valley"

President's message

The Board would like to thank everyone who attended the Fall Potluck at Jeff Bell and Phil Marley's house and garden. Fortunately the weather was sunny and warm so we had a good turnout, about 24 people in all. The member's plant sale netted about \$325 for the SRS. There were many plant collectables from previous sales and donations. Phil and I had just come back from two weeks in Kyoto, Japan and then house guests arrived from Atlanta. Everything went smoothly and the food that everyone brought to the potluck was great. My friends even helped in the yard that morning pulling weeds! Be sure to attend our next meeting on October 7 at the CUH.

While in Japan, my partner Phil and I were able to use a friend's apartment for two weeks while she was home in British Columbia during her summer school break. Even though it was not peak bloom time or even bloom time at all we had a chance to visit some of the well known Temples and gardens of Kyoto, Japan without the huge crowds that usually occur during bloom time. Most of the gardens were of the shūyū style, designed for strolling and viewing from a winding path such as the Kinkaku, the Golden Pavilion, the Ginkaku-ji, the Silver Pavilion, and Kiyomizu Temple build on hundreds of pillars.

Nijo-jo, Nijo Castle, and the Ninomaru Garden called the shoin zukuri style, was a large scale garden with a pond where the larger island represents Eternal Happiness and two smaller islands called Crane Island and Turtle Island. The garden was designed in 1626 to be primarily viewed from the main hall by the Emperor.

The Rock Garden of Ryon-ji Temple, a Zen rock garden laid out in the 15th century is the kanshō style, these are Zen Buddhist raked gardens as was the Rock Garden of Daisen-In Temple, made in 1509 AD. These are gardens for contemplation and meditation.

We also walked in the Bamboo Forest and strolled along the Katsura-gawa. (River) Most of the azaleas were pruned into bonsai shapes and rock shapes, mounds. The native rhododendrons are at higher elevations than where we were. The azaleas can take the heat and dry humid summers in the lowlands of Kyoto.

For those of you who missed the ARS Western Regional in Federal Way, the conference had some interesting speakers on many topics. I was able to attend the following talks:

Rhododendrons of Northern Europe by Bill Heller; Large Garden Design by Steve Haizlip of New Leave Creations; Collecting Rhododendrons in Asia by Kelly Dodson; Micropropagation at Briggs Nursery by Lynne Canton; *R. macrophyllum* Genetics Research given by Michelle Stitzer, University of Washington; Soil Improvement and Compost Tea by Tad Hussey of Keep It Simple, Inc.; Landscaping with Rhododendrons by Ed Hume; Hardy Ferns by Richie Steffen.

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Apples Can Kill You

Oddthoughts 4

M. J. Harvey

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I have a confession to make: when I was at school I just loved chemistry, still do, some 64 years later. Early influences stay with you. So it was with delight that I seized on an attractive book that came into the Victoria Horticultural Society library a few years ago. Since most people are unlikely to read it I thought a slightly extended review might be in order.

The book is *Poisonous Plants* by Froehne and Pfander, two Germans working in the emergency department at Freiburg Hospital. The beauty of the book is the ease of use. It is laid out alphabetically by plant family and each family has one or more large, clear, photographs of a flowering shoot. There is no problem looking up a particular plant; that part is easy.

Where the book may give indigestion is in its use of technical terms. You soon hit words like *fumanocoumarins* (more later) and indeed the book is a "handbook for Doctors, Pharmacists, Toxicologists, and Veterinarians," so the Germanic obsession with detail can be excused. But gardeners can find that reading around the technical terms can be quite rewarding. Let me give a few examples.

In the classical writings there is an ancient tradition that the honey which bees have made from Rhododendron flowers is poisonous. Reports by Pliny and Xenophon detail sickness in soldiers invading what is now northeastern Turkey following their consumption of local honey. Subsequently their army was defeated. Is this myth? Is Turkish honey still poisonous?

Honey from Turkey can still be a problem since the simultaneous flowering of many hectares of the fragrant, yellow azalea *R.luteum* can result in bees collecting almost pure *Rhododendron* nectar.

Toxic effects include drooling, dizziness, vomiting and unconsciousness. After receiving many names the compounds responsible are now called grayanotoxins. Molecules of these attach to channels in cell membranes allowing sodium ions to leak out and calcium ions in. This has nerve and cardiac consequences, possibly fatal.

The presence of toxins in nectar is variable in the species of *Rhododendron*, being present in some, absent in others. Currently (2009) the American Rhododendron Society has given a grant to a researcher in the University of Newcastle upon Tyne to investigate the distribution of grayanotoxins and any connections this might have to the pollinators.

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October Program

This month, the program will take us down under to Tasmania. In 2006, Bill Heller took a trip to Australia and Tasmania to see rhododendrons in another part of the world. In Burnie, Tasmania, there is an amazing garden called the Emu Valley Rhododendron Garden. The garden is designed around regions of the world so each section is a collection of rhododendrons, trees, and other plants from a specific part of the world. Join us for Bill Heller's program, "The rhododendrons of Emu Valley."

From the Book Lady

The usual assortment of books (some old, some new) will reappear at the October meeting. Be sure to stop by and check them out.

—Laura Kentala

October treats

For our October meeting, we will be treated to sweet delectables from the bakery kitchens of Jeff Bell and Irene Neiswanger.

—Stan Hungerford

President's message continued from page 1

I missed hearing:

Clarice Clark, Rhododendrons in Alaska, Canada, and WMARSP; Planting under the Petticoats by Marianne Binetti; Collecting Rhododendrons in Sikkim by Steve Hootman; Istanbul to Patagonia: Searching for Rhododendrons and Other Garden Treasures by Richie Steffen.

If any of these topics sound interesting to you, let our programming person, Bill Heller know and we'll try to schedule them. —Jeff

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Readers will be delighted to hear that the other genera in Ericaceae, particularly *Vaccinium*, are toxin free, thus cranberries and blueberries may be indulged in freely. However, personally I would not touch tea made from the leaves of Labrador tea. Its old name was *Ledum* but it is now transferred to *Rhododendron* and something in those leaves has to stop hungry moose from touching it.

Another example is the opium poppy *Papaver somniferum*. This produces opium, a complex mixture of maybe forty or so alkaloids. Opium is a schedule 1 drug and the cultivation of the poppy and the production of opium is prohibited. The problem here is that most gardens in most cities in the temperate world have buried seeds of the opium poppy, mostly as the double garden variety. You dig the soil, light strikes the seed, they grow; you are a criminal. I was once assured that the police do not patrol gardens looking for the odd ornamental poppy—but that was before 9/11.

Poppy seeds contain negligible amounts of alkaloids, so poppy seed cake will not give you a high. On the other hand the test for opioids is so sensitive that they can be detected for a few days after a person has eaten only a couple of poppy seed bagels. This could cause problems.

So what do we grow that is really poisonous? High on the list are monkshood (*Aconitum*), castor oil plant (*Ricinus*), *Colchicum*, *Daphne* and the spurges (*Euphorbia*). The book discusses very sensibly whether we should rip out all dangerous plants, and concludes that this is not necessary. Most poisonous plants are not dangerous because they taste really bad. After all these substances are animal repellents variously aimed at different levels of the animal kingdom from deer to slugs to aphids and weevils inside seeds. There are some particular dangers; for example, three *Daphne mezereum* berries could kill a toddler and when kids are young—the terrible twos—everything goes into the mouth, and the red berries of *Daphne* look pretty. We have solved this problem since children are now monitored 24/7. They are shepherded from air-conditioned home to air-conditioned mall to ultra-safe playgrounds with no grass or trees. Richard Louv of *Last Child in the Woods* has termed this the “nature deficit.” When we were trying to sell our Sooke acreage I was showing off the orchard, picking apples to hand to open-house visitors and was shocked to find that one girl had no idea that apples grew on trees.

The most common cases of poisoning among gardeners involve getting sap of euphorbias in the eye. Extremely small traces cause severe eye inflammation. Gardeners who prune dead flower heads off the large euphorbs, especially *E. carassias*, get abundant amounts of the milky

sap on their hands and should be acutely conscious to avoid touching the face. Do not merely wash the hands afterward but scrub them. I have myself been affected and it is nasty.

I love it when people tell me “I never use chemicals.” Everything is made of chemicals and the natural world has more chemicals, many very nasty, than all the hundreds of thousands that man has made. Certain crops are cultivated for their unusual chemical content: we love caffeine in coffee, capsaicin in chilies and allyl isothiocyanate in mustard.

Sometimes we get caught as with the previously mentioned furanocoumarins in grapefruit. This class of substances slows down a mechanism in the liver that breaks down and eliminates some groups of chemicals. One example is digoxin (from foxglove, *Digitalis*) taken for certain heart problems. Eating grapefruit while taking this drug may cause it to accumulate in the bloodstream, causing an overdose. Ask your pharmacist about your medications.

It has become popular to mistrust science. People want to use only “natural” cures for complaints, rather than the “synthetic” drugs that scientists are “foisting” on them. This is a complete misreading of the situation. While you can trust most herbalists and naturopaths to prescribe harmless remedies, going out yourself and picking your own herbs can result in disaster. Plants can be anything but harmless.

So, can apples kill you? Yes. One person managed it. He loved chewing on the crunchy seeds, so having saved up three quarters of a cupful, he decided to chew them one evening and was found dead the next day. Why? Cyanide poisoning. Apples are a complex fruit; I could give a whole lecture on their structure and chemistry. From the apple’s point of view, the ultimate product is the seed, and all the rest is marketing. So the seeds are protected by a tough core, unattractive color and, inside, a substance which releases cyanide when eaten.

Should we ban apples because they can be deadly? No. My purpose in writing this is not to inculcate fear but to impart knowledge about subjects you may not have thought about. With knowledge comes confidence. Enjoy an apple, and a few seeds swallowed will not harm you; your liver protects you.

For further reading, Joe Schwarcz has written several very readable books on the chemistry of foods and everyday life; one book includes an apple on the cover.

The Seattle Rhododendron Society

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Coming Up

October 7, 2009, 7:00PM

**Monthly Meeting at the Center for
Urban Horticulture (see story inside)**

Meerkerk Work Party

second Saturday of every month