Fraser South

The Yak

MARCH 1995

A CHAPTER OF THE AMERICAN RHODODENDRON SOCIETY

FRASER SOUTH RHODODENDRON SOCIETY
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WEDNESDAY, MARCH 15, 1995 MEETING
8:00 P.M.
St. Andrews Anglican Hall
20955 Old Yale Road, Langley

Vireyas—Culture and Propagation
Guest Speaker: E. White Smith

White Smith has been a member of ARS for 35 years and has been growing vireyas for the past 22 years. Vireyas are a group of tropical rhododendrons and of the 300 known species, only 150 are in cultivation. Enthusiasts keep in touch with the Vireya Vine a worldwide newsletter edited by White Smith. In addition to his own plants, White takes care of the Vireya collection at the Rhododendron Species Foundation.

New Members

A warm welcome to Eric and Elspeth Calveley of South Surrey who joined Fraser South in February.

February Meeting

Thanks to Vern and Gord Finley for a lovely, relaxed evening on February 15. Vern showed slides of their garden and it was really interesting to see how the garden had grown over the years. The photographs of *R.* 'Queen of Hearts' were particularly outstanding and there were fascinating slides of the hybrids the Finleys have developed. Gord gave a very useful and skillful demonstration of grafting techniques for rhododendron propagation.

Import Permit Update

An import permit is no longer needed when bringing rhododendrons into Canada from the U.S. in any form.

Plants still require a phytosanitary certificate, however, and arrangements should be made with the supplier.

At the ARS convention in Portland in May there will be a state plant inspector on hand to supply the necessary phyto.

Restrictions still apply to many plant families, and some, such as Balsam Fir, are prohibited entry (seed excepted). For more information contact a Plant Health Officer at the Food Production and Inspection Branch of Agriculture Canada—666-0593.

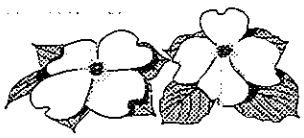
YAKALENDAR

Wednesday, March 15, 8:00 p.m.
Fraser South Chapter Meeting
Vireyas—Culture and Propagation—Speaker: E.White Smith

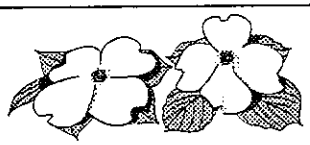
Saturday, April 1, 9:00 a.m. to 4:00 p.m.
Rhododendron Species Foundation Annual Spring Sale
Federal Way, Washington

Sunday, April 9
Fraser South Chapter Sale
Clay's Nursery, 3666 - 224th Street, Langley

Sunday, April 16
Fraser South Chapter Tour of North Shore Gardens
Deep Cove to Lion's Bay. We will tour well-known private gardens including Glen Patterson's featured in our January program. We plan to car pool. If any members are interested in contributing to the hire of a mini passenger van contact David Sellars before March 31, 1995 at 535-0763.



SPRING has SPRUNG



Wednesday, April 19, 8:00 p.m.
Fraser South Chapter Meeting
Expedition to China—Guest Speaker: Peter Wharton

Thursday Evenings, April 20 to May 18
Members' Gardens Tour
Each Thursday evening one member's garden will be open to Fraser South chapter members. Our gardens vary from some only recently started to collections of established plants. These tours provide an opportunity to discuss successes and future plans and to exchange information and ideas. Anyone interested in welcoming visitors on a Thursday evening please contact David Sellars at 535-0763.

Saturday, April 22
Fraser South Chapter Sale & Truss Show
Willowbrook Mall, Langley

Sunday, April 30
Fraser South Chapter Tour of Victoria Gardens
This tour will include Towner Crest (Weesjes), Moonridge (Dougan) and the rock/alpine garden of Alf Smith.

May 10-14
50th Annual ARS Convention, Portland Oregon

Fertilizers for Rhododendrons

The size of my stomach bears testimony to how well fertilized I am so if you put any faith in the ancient herbal Doctrine of Signs (or Signatures) then you may decide that this messenger is good, i.e., well-fertilized or bad, i.e., over-fertilized.

Photosynthesis is the process whereby plants capture the sun's energy. This energy can be stored or transported around the plant to make it grow and thrive. Very simply, photosynthesis is the chemical reaction whereby carbon dioxide in the air reacts with water to produce sugars and starches (carbohydrates) and oxygen.

All plants are made up of these three—carbon, oxygen and hydrogen plus thirteen other essential mineral elements. Some plants need other elements but all have this list of thirteen. They are the six MACRO nutrients: nitrogen, phosphorus, potassium, calcium, magnesium, sulphur—the first three are called the Primary Nutrient Elements—then the seven MICRO nutrients: iron, chlorine, copper, manganese, zinc, molybdenum and boron. In nature these are provided by the break down of previously living material and by the weathering of rocks.

In their natural environment rhododendrons have evolved to obtain all of their requirements, obviously, right in the spot on which they grow. Plants, unlike animals, don't move around much in search of food. If any of the thirteen minerals are not on the dinner plate the plant will not survive. Some plants have evolved to have a need for additional minerals—salt marsh plants need sodium, for example: however, rhododendrons have not yet been shown to have any other essential element in their diet.

If we make a broad generalization about the provenance of rhododendrons, we can say they occur where there is:

1. ample rainfall in longer daylight months for those from more northerly climes and evenly distributed rainfall for those near the equator;
2. acidic soils because of the fairly slow rate of biomass decomposition;
3. a more or less shady location; and
4. humus accumulations because temperatures are moderate.

A simple mnemonic for the culture of rhododendrons is that they are easy to grow if one remembers to **WASH**; i.e., (**W**)ater, (**A**)cid, (**S**)hade and (**H**)umus.

The biological productivity or business of plants depends on light and the ambient temperature. That special group of plants called the broad-leafed evergreens are active all year long. Even when the soil around the roots is frozen and there is no liquid water to suck in with the dissolved mineral ions the leaves can still be transpiring and some react to this by curling up their leaves to reduce this transpiration. Rhododendrons want to grow the year round; to do this they need water at the roots. In our mnemonic if we take away the (W)ater we are left with (ASH) and this has happened to my plants too often, especially this summer.

The biological productivity has been measured and it doubles for every 10°C increase in temperature. So at 10°C the business of the plants is twice what it is at 0°C. At 20°C it is about four times. Imagine how busy a rhododendron wants to be when grown in a container in the full sun with soil temperatures of 40°C or more. Internal constraints like the size of the plumbing just can't cope and again we end up with (ASH).

Another thing which is important about understanding the care rhododendrons need is appreciating where they store their nutrients. I found particularly interesting and important the advice coming from Oregon State University as reported at a couple of the ARS conventions. It seems broad-leaved evergreen plants store most of their nutrients in their leaves. A healthy plant has quite a bit socked away in these botanical RRSP's—and when the roots can't meet all the plant's needs it draws down on these stored starches and sugars. We humans don't want to use our RRSP's—if we have them at all—unless and until we have to. The difference with the plants is that they usually save them for a dry day not a rainy day! However here in the Pacific Northwest, as far as rhodos go, it can often be the rainy day after all when the reserves are called on. We get so much rain in the winter that the soil nutrients are leached away and escape the ion-pumps of the shallow rooted rhododendrons. In a large proportion of the natural rhododendron habitat winter rainfall is small or the plant is covered with snow and there is not too much being leached away. Here, our plants will benefit by having their essential nutrients supplemented with a feed of fertilizer. Of course our chemical supplements will be leached away too but the scheme is to give the roots a chance of catching nutrients on the way past.

The regime I now follow is to give them half-strength feeds in November, January and March (soil temperatures are low and productivity slow) and full strength feeds in May and late June or early July.

The mix I use is one developed by Tom Brown of the Vancouver chapter. He spoke about this at the Regional Conference at Whistler a few years ago. A test of his formulation followed and it was found to give good results.

Its analysis is: Nitrogen 10% (half of this is sulphur-coated urea), Phosphoric acid 8%, Soluble Potash 6%, Sulphur 8%, Magnesium 5%, Iron 1.8%, Zinc 0.04%, Boron 0.02%, Manganese 0.04%, Copper 0.02%. This formulation (10-8-6) differs from other commonly sold fertilizers for rhododendrons, typically (4-12-8), in that the proportion of nitrogen is much higher.

There is a myth that rhodos don't need a high proportion of nitrogen. Analysis of rhododendron plant tissue confirms a high percentage of nitrogen. My own experience is that when a plant shows chlorosis—a paleness of the green colour between the veins in a leaf—it can usually be cured by a shot of nitrogen—provided the pH is in the right range. Ammonium sulphate (21-0-0) is a soluble source of nitrogen instantly available to the plant. Caution is

needed in using ammonium sulphate as too much can burn the plant. Calcium nitrate is sometimes used, I'm told, to give a quick greening up to the foliage. To the ammonium sulphate I usually add some magnesium sulphate (Epsom Salts—1 gram to 3 litres) and some fritted trace elements (FTE) because all the books talk about iron chlorosis and magnesium deficiency. I haven't observed these doing much good but because a magnesium atom is the central one in the head of the chlorophyll molecule I have invented my own old husband's tale and figure an occasional tipple of Epsom Salts should be a "good thing". For a quick pick-me-up 20-20-20, Fish (5-2-2) or 30-10-10 are also very good.

I get Tom Brown's mix especially made and buy it in quantity.

Of course some growers (I wish) have ideal natural conditions for rhododendrons with bushels of well-composted oak leaves and fir duff inches deep. They don't need any supplemental feed. My own soil is thin glacial till with very little humus. There are no rich alluvial accumulations. The ice scouring can still be seen. It only left about 11,000 years ago and the Douglas Firs didn't start growing until about 7,000 years ago so there haven't been many generations of big plants to build up a decent duff. My rhodos need all the help they can get, which means bark mulch, oak leaves, sawdust or any other natural kind of dressing so the supplementary chemical feeding becomes doubly necessary in a container in the hot sun when soil temperatures can easily be 40°C.

—Norman Todd

(reprinted from the Victoria Rhododendron Society Newsletter, October 1994)

Fraser South Rhododendron Society Executive and Committees

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by Indumentum

I like drains. Sadly, they do not receive the appreciation they deserve from many gardeners. Once they have good drainage they tend to forget about it; it's taken for granted like good government. It's only when problems appear that everyone starts to complain. And of course no one wants to pay for it.

Real men dig their own drains. There are few things in life more satisfying than excavating a trench, laying down the 'Big O' and backfilling with clean drain rock. For long-term appreciation an open outlet is recommended so you can stand and watch the water coming out after a heavy rain. It's similar to the feeling you get installing a sprinkler system and watching the spray go around and around.

When we built our pond last fall I put a drain at the base of a steep excavated slope. After a few weeks of wet weather I realised that the seepage from the slope was so great that I needed to put additional drains into the slope. When I dug down to the original drain to tie in a new pipe I found that the water was not draining away. At the end of the drain nothing was coming out! This was a real man's bad dream. A drain plugged after only three months of operation.

So I got out the pump, dug down to the top end of the pipe and pumped about 20 gallons a minute from the pond into the recalcitrant drain. After a tense 30 seconds when nothing happened, a great whoosh of reddish slimy gobby stuff came slithering out of the end of the pipe. If you detest yogourt like I do, you would have likened it to orange sherbert flavour.

After consulting with one of our chemical engineers at work the mystery was solved. The slime was bacterial growth multiplying in the ideal conditions in my drain. So the yogourt analogy wasn't that far off. The mistake I had made was backfilling above the drain with compost which had provided a rich source of nutrition for the little creatures. The moral of this story is—compost is really good stuff but you have to be careful where you put it.