

To

Date

Wednesday November 14, 2007

*2 pages from Mario Lanthier*



The annual conference of the International Society of Arboriculture (ISA), Prairie chapter, was held November 5 to 7 in Calgary (Alberta). See [www.isaprairie.com](http://www.isaprairie.com).

The meeting was attended by almost 200 persons, mostly arborists employed by municipalities and landscape maintenance companies.

The key note speaker was Philip van Wassenauer, from Europe, who reviewed new advances in detection of tree decay by using tree pulling and sonic tomography.

I attended to make a presentation about pest problems in Alberta.

### ***Tree injection to manage European elm scale (Jim Watts, City of Calgary)***

From 2005 to 2007, the City obtained research permits from the federal government to inject systemic insecticides into mature street-planted trees. The City treated over 11,000 public property trees in 3 years.

Products tested included Acecap (active ingredient acephate, same as Orthene) and Confidor (active ingredient imidacloprid, same as Admire). Injectable systems were Ecoject from Ontario, and Pointer from the USA (contains imidacloprid).

Most effective were Confidor in Ecoject system, with residual of 1 year and more. Research results were submitted to the federal government for full registration.

After training, City workers could treat 30 trees per hour to inject 30 ml of pesticide per tree. Cost of Ecoject injection is comparable to other application methods.

Note the federal government issued an "Emergency registration" for use of Orthene as an injection for control of ash psyllids on ash trees in Alberta until 2008.

### ***Pruning young and mature trees***

By Chris Hyde-Lay, Bartleet Tree Expert Company, Victoria.

*Pruning goal is different on young trees and old trees.*

- Young trees have a high rate of growth and a surplus of stored energy.
- Goal on young trees is to promote growth and establish a sound structure. Pruning consists in removing live branches to influence orientation and size of attachment.
- Mature trees have a low rate of growth and minimal stored energy.
- Goal on mature trees is to maintain a stable environment to slow the spiral of decline.

*Pruning cuts should respect natural wood formation in trees.*

- The cut is made outside the branch collar, an area at the junction of branch and trunk (visible as a swelling) where wood formation can close the pruning cut and resist decay.
- Branches should have a smaller diameter than the trunk at the point of attachment.
- Branch attachment is stronger on smaller branches compared to larger branches.

*Poor pruning leads to defect, decay and a weak tree structure.*

- Research indicates less decay enter pruning cuts when a branch is 50% of trunk size.
- Excessive pruning depletes reserves and the tree's ability to perform photosynthesis.

### ***Management of ancient and veteran trees***

By Ted Green, Royal Gardens in Windsor, England. He is a founding member of "Ancient Tree Forum" ([www.ancient-tree-hunt.org.uk/project/atf/champions.htm](http://www.ancient-tree-hunt.org.uk/project/atf/champions.htm)).

*Tree aging and decline is a natural process.*

- Trees declining have branches drooping towards the ground, dieback in the crown, and breakage of large branches (or stem) leading to a short live stump.
- Fungi found in decay are likely co-existing with the trees ("endophyte fungi") but become active only when a tree stress event promotes their expression.

*The "Ancient Tree Forum" promotes maintenance rather than removal.*

- Pruning is done to reduce sway in windstorms (6 times length of diameter).
- "Mulch little and often, not all in one pass, the older the tree, the slower the process."
- When hazards are a concern, "Move the target, do not remove the tree."
- For more information, see the publication "The Future for Veteran Trees" at <http://www.english-nature.org.uk/pubs/publication/PDF/VetTreesFuture.pdf>.

### ***Silva cells for tree planting in sidewalks***

By Mike James, DeepRoot Partners LP (see [www.deeproot.com](http://www.deeproot.com)).

*What are "silva cells"?*

- An engineered method of planting trees under pavement (sidewalk or streets).
- The system uses modular building blocks made of high-strength glass and polypropylene, with open walls, installed underground, in which trees are planted.
- Each block is 2' X 2' X 4' and contains 3.99 m<sup>3</sup> (10 ft<sup>3</sup>) of soil and tree roots.
- Blocks are placed on top of each other (up to 3 high) and next to each other (trench).
- Block dimensions are based on research by James Urban, who related soil volume to tree caliper. In short, trees with insufficient space for root growth will decline rapidly.

*Has "silva cells" being used in the region?*

- The City of Kelowna planted trees in Silva cells in 2007 on Richter Street corner of Bernard Avenue. See [http://www.deeproot.com/pdfs/PNW\\_Trees\\_article.pdf](http://www.deeproot.com/pdfs/PNW_Trees_article.pdf).

### ***Canadian Urban Forest Conference***

The 8<sup>th</sup> Conference will be held September 24 to 26, 2008 in Sherwood Park, Alberta (west of Edmonton). See [www.strathcona.ab.ca/2008CUFC](http://www.strathcona.ab.ca/2008CUFC).

Previous conferences include Kelowna in 2004 and Banff in 2000.