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2 pages from Mario Lanthier

ISA CONFERENCE IN OREGON

The annual conference of the Pacific Northwest Chapter of the International Society of Arboriculture was held in Sunriver, Oregon, on October 5 to 8. I attended the sessions related to hazard tree assessment, along with approximately 115 persons.

Tree Hazard Decision Making

Speakers: Nelda Matheny and Jim Clark, of HortScience, Inc., California. They are the authors of the main textbook currently used in North America on this topic.

The 6-hour presentation was a review of current knowledge.

1) Who is doing the hazard tree evaluation?

The person working on a tree has a duty to inspect it for hazards. Thus, any pruning or pest management work should include a rapid pre-work hazard inspection.

2) How often is a tree inspected for hazards?

Current suggestion is every 1 or 2 years. At the minimum, a tree should be inspected by a trained person as part of the regular pruning cycle.

3) What should trigger a thorough inspection?

An area with more wood than normal or less wood than normal is an area with a defect. Trees are self-optiminizing structures. No area of the tree has too much or too little wood, unless there is a defect. A tree adds wood in response to a mechanical stress.

4) How is an inspection conducted?

The Visual Tree Assessment is a method of tree defect analysis developed by Claus Mattheck in Germany. The method is to examine the patterns of growth on the outside of the tree, especially the abnormal growth, as indications of defects inside of the tree.

5) What abnormal growth should be examined?

Bulge (symptom of internal decay); Rib (symptom of radial crack); Naked bark (symptom of delamination); Hollow stem (symptom of active decay); Codominant branch attachment (stable until weight overload); Cracking of bark (high local stress).

6) How do we inspect for decay?

First, look for visual decay indicators such as mushrooms and nesting holes. Second, probe cavities with a mallet or a steel rod with a pointed end. Third, only if necessary to confirm a decision, sample with a battery operated drill or use an increment borer.

7) When is there too much decay?

All current formulas evaluate "strength loss" associated with wood decay and assume the hollow tree is similar to a cylinder. They should be seen as useful tools but not as critical decision-makers. For example, the method from Mattheck recommends removal when width of sound wood is 30% or less the radius of the trunk.

8) What is the process for a large site?

First, establish the scope of the task: only large trees? only where a there is a defect? Second, establish the target rating for the site: where is "constant use"? "frequent use"? Third, tag each tree and map its location. Fourth, examine each tree for body language (defects and growth striation). Fifth, drill only if further information is required. Sixth, recommend abatement work using a priority rating system.

Fuel reduction strategies in forest interface areas

In 1997, the Oregon legislature voted the "Forestland-Urban Interface Fire Protection Act". The following steps are recommended to home-owners near a forest:

1) Assess the floor fuel.

Rake off dry debris if thick or close to a building. Remove shrubs with a high oil content, such as bitterbrush or junipers, and replace with fire-resistant plants, such as cotoneaster, Oregon grape, dogwood, burning bush, serviceberry, butterfly bush, etc.

2) Assess the "ladder" potential.

Remove intermediate size trees that would help the fire climb from the ground to higher branches of tall trees. Remove lower branches of tall trees. Aim for a buffer zone of 10 meters (30 feet) around the house where there is a minimum of combustible materials.

3) Assess the dominant stand.

Remove large, mature trees to obtain a spacing 21 feet by 21 feet. Studies have shown much lower mortality from bark beetle attack compared to spacing of 12 feet by 12 feet.