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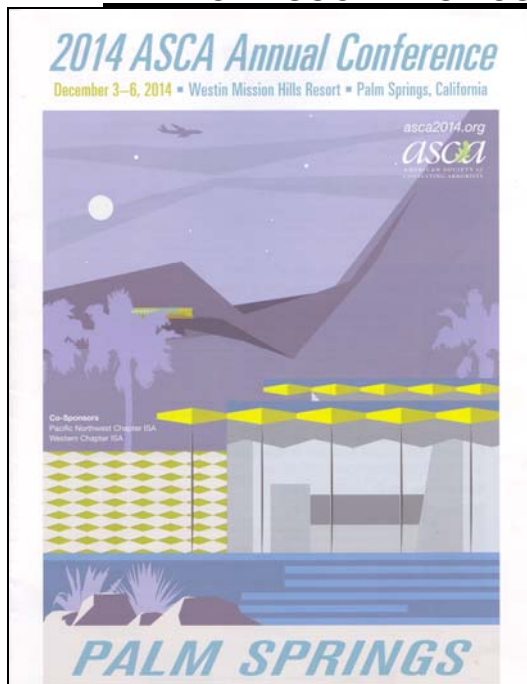
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Tuesday December 9, 2014

4 pages from Mario Lanthier

AMERICAN SOCIETY OF CONSULTING ARBORISTS (ASCA)



The annual conference was held in Palm Springs (California) from December 3 to 6. It was attended by 330 persons, mostly private and municipal arborists from the United States.

ASCA aims to be “the authoritative voice on trees” and is viewed as the most prestigious gathering for consulting arborists in North America.

Website www.asca-consultants.org.

The event this year had a strong focus on tree risk assessment, including tools, procedures and remedial actions.

BEEES AND PESTICIDES

by Michael Raupp, University of Maryland

There is a decline in the population of pollinators (honeybees, bumble bees and solitary bees). Threats include habitat degradation and non-target effects of pesticides.

Pesticides can be lethal (direct killing of bees) but mostly sub-lethal, causing impaired reproduction, compromised immune system, reduced ability to forage, etc.

“Colony Collapse Disorder” refers to the disappearance of most bee workers without visible dead bees, yet there is plenty of food within the hive and no opportunistic pest. The problem may be caused by exposure to neonicotinoid pesticides.

A review of available research is found at the Xerces Society for Invertebrate Conservation, webpage <http://www.xerces.org/neonicotinoids-and-bees/>.

WRITING PRUNING SPECIFICATIONS

by Ed Gilman, University of Florida

The industry standard is published by the American National Standards Institute (ANSI). The current standard is ANSI A300 Part 1 Pruning, along with the companion publication "Best Management Practices", both revised in 2008. The work is housed at the Tree Care Industry Association (<http://tcia.org/business/ansi-a300-standards/part-1>).

A written specification for pruning should include the following elements.

1) Objective

Reasons for pruning include reducing risk, managing tree health and structure, improving aesthetics, improving sight, restoration, or other such objectives.

This standard does not cover pruning for agriculture or crop production.

2) Method

Four basic pruning methods are recognized.

- Crown cleaning: selective pruning to remove a part that is dead, diseased or broken.
- Crown thinning: selective pruning to reduce the density of live branches.
- Crown raising: selective pruning to provide vertical clearance.
- Crown reduction: selective pruning to decrease height or spread.

Two methods are specifically mentioned as not acceptable pruning practices.

- Topping: reducing tree size using heading cuts on the trunk and scaffold branches.
- Lion's tailing: the removal of an excessive number of inner, lower lateral branches.

3) Cut location

On mature trees, pruning cuts should be made in the upper and outer 1/3 of the tree. This location provides the best mechanics to slow growth rate and reduce loading.

On young trees, pruning cuts are made to improve branch architecture, a method called structural pruning. "Trees should be pruned at planting to correct poor structure."

4) Cut type

There are three pruning cuts.

- Removal cut: removes a branch at its origin just beyond the collar, without cutting into the branch bark ridge. It removes the smaller branch and retains the larger branch.
- Reduction cut: reduces the length of a branch back to a live lateral at least 1/3 the diameter of the cut stem. It removes the larger branch and retains the smaller branch.
- Heading cut: severing a shoot or stem no more than one year old back to a bud, also called internodal cut. Also describes the reduction of a branch to a very small lateral.

5) Number of cuts and diameter of branches to be cut.

On mature trees, cuts should be made on smaller size branches, as large cut sizes may not heal properly and become susceptible to decay.

Writing pruning specifications, continued



Above left: Dr. Gilman guiding the field portion of the workshop.
Right: The white bands illustrate the areas of higher mechanical stress on mature trees. Pruning should be made in the outer 1/3 of the canopy to help alleviate the stress.

RETRENCHMENT PRUNING

by Ed Gilman, University of Florida

Old trees normally break and become smaller. Old trees naturally reduce themselves. Eventually, the crown is made of new sprouts growing from latent buds that were stimulated by the broken branch ends.

“Sprouts are good, they are our friends. Sprouts means the tree has vitality.”



“Restoration pruning” aims to redevelop the tree structure and appearance after severe damage or topping. “Retrenchment pruning” is a refinement where restoration is done on over-mature trees to imitate the natural process of crown ageing. The goals are to promote tree longevity, promote natural habitat and increase public safety.

A number of techniques are used over many years, each year removing no more than 10% to 20% of live foliage or making reduction cuts no longer than 1 metre.

Techniques include removing large dead wood, reducing end weight of live branches, and removing terminal growth to promote internal shoots from dormant buds.

TREE RISK ASSESSMENT

by Tom Smiley, Bartlett Tree Experts

Monitoring Tree Lean

There is no currently no recognized number for the maximum acceptable amount of lean. Even a 45° lean may be stable for a long time. The largest concern is a change in the lean, usually indicating a failure in progress.



Left: An uncorrected lean is the most concern as it may indicate a failure in progress.
Centre: Sweep or self-corrected where the tree is growing upright and likely stable.
Right: A bow where the top of the tree is leaning more than the base.

Drones for upper crown examination

The “unmanned aerial devices” (UAD) are devices useful for aerial inspections. They are affordable (\$1500 to \$3000) and equipped with high resolution cameras with an active image stabilizer.

The company has used UADs in the United Kingdom to speed up the inspection of mature trees susceptible to be infected with a disease in the upper canopy.



Left: Tom Smiley holding a UAD. Right: Flying over a palm tree at the event.