Disinfecting Pruning Tools

Why disinfect pruning tools?

Pruning saws, shears and other pruning tools can spread disease organisms from one plant to another or from one part of a plant to another part of the same plant if not properly disinfected. While it may not be completely necessary to disinfect pruning tools each time you use them, making a habit of doing so can help reduce the chances of disease transmission among healthy landscape plants, and is especially important when working with plants that are considered irreplaceable. Washing your hands with soap under running water is all that is necessary to disinfect your hands after working with diseased plant material.

The Disinfection Process

Tools should be brushed clean of dirt and debris before placing in the disinfectant solution. This will allow the disinfecting solution to reach every cutting surface. For chain saws, it is recommended that they be taken apart and both the chain and bar soaked. By having multiple pruning tools, one tool can be soaking in the disinfectant solution while the other tool is used for pruning. Disinfectant solution can be carried into the landscape in a tightly sealed plastic bottle, wide enough so that tools can be dipped directly into it. All tools should then be rinsed with clean water before pruning or allowed to air dry. The disinfectant solution should be replaced at least every ten plants or every two hours. In some cases, tools should be disinfected between each pruning cut.
Pruning tools that are regularly disinfected need to be kept in top condition. Older blades become pitted and these pits can harbor microbes that are unaffected by quick sterilization. This is especially true of bacteria associated with active cankers. Finally, disinfectants should never be applied to pruning wounds because of their ability to further injure the plant and prevent callus tissue from forming, slowing the healing process.

**Available Disinfecting Products***

- **Household bleach** (ex: Clorox): 25% solution (1 part bleach + 3 parts water)
- **Pine oil cleaner** (ex. Pine-Sol): 25% solution (1 part cleaner + 3 parts water)
- **Rubbing alcohol** (70% isopropyl): 50% solution (1 part alcohol + 1 part water)
- **Denatured ethanol** (95%): 50% solution (1 part alcohol + 1 part water)
- **Trisodium phosphate** (Na$_3$PO$_4$): 10% solution (1 part Na$_3$PO$_4$ + 9 parts water)
- **Quaternary ammonium salts**: use as directed on product label

**Household Disinfectants** (Lysol, etc): full strength

Tools should be soaked for at least 5 minutes (or as directed on the product label) and rinsed with clean water or allowed to air dry before use. A longer soaking period may be needed for pruning tool surfaces that are not smooth. Sterilizing your tools is no guarantee against plant disease, but it can have a significant impact on disease incidence and severity.

* The use of trade names is solely for the purpose of providing specific information. It is not a guarantee of warranty of the products names and does not signify they are approved to the exclusion of others of suitable comparison.