

## Time to Clean Garden Tools

By Susan Camp

It is time to be honest. Do you clean and disinfect your garden tools every time you use them? Oh, I don't see too many hands raised, just a few, and I know who they are. How about cleaning your hand tools every few weeks? A few hands there, but still a sparse showing. What about cleaning at the end of the season? That's better, I see more hands raised.

If you didn't get around to cleaning your hand garden tools last fall, February might be a good time to start working on them, if you have a warm garage to work in and an indoor water source. First brush away loose dirt and wash off last summer's dried mud with a strong spray of water. That's the easy part; after the blades are sparkling clean, you have to decide what to use as disinfectant, and which solution to use can be confusing.

Why do we have to disinfect hand tools? Simply put, dirty garden tools can spread fungal, bacterial, and viral diseases from infected to healthy plants. If you prune diseased plants, you need to clean and disinfect. Many infectious agents won't survive after several months without a host, but it is a good idea to start the new season with clean tools.

In 2015 Dr. Linda Chalker-Scott, Extension Specialist at Washington State University, published a review of literature related to sterilizing garden tools. She concluded that soil- and air-borne pathogens are more likely to be transmitted by hands and clothing, rather than tools, but organisms that invade the xylem, or water-transport, system of plants can be transmitted to healthy plants by contaminated tools. Chalker-Scott recommends disinfecting pruners after each cut to prevent spreading disease. She further recommends cutting into cankers on trees and shrubs only if they are dry. Pathogens can be spread more easily from oozing cankers.

Disinfectant choices, according to the University of Florida IFAS publication "Disinfecting Garden Tools", include 1 part rubbing alcohol (70% isopropyl) to 1 part water (50% solution); 1 part household bleach to 3 parts water (25% solution); or 1 part pine oil cleaner to 3 parts water (25% solution). Solutions of denatured ethanol (95%) 1 part alcohol to 1 part water (50% solution); quaternary ammonium salts as directed on product label; and trisodium phosphate 1 part  $\text{Na}_3\text{PO}_4$  to 9 parts water (10% solution) also can be used. Full-strength Lysol household disinfectant or Lysol concentrate 1 part to 9 parts water (10% solution) and Listerine mouthwash are listed in several articles as effective disinfectants.

So which one is the sanitizing solution of choice? Most current studies indicate that household bleach and isopropyl alcohol are the most corrosive chemicals, causing pitting of metal blades and making them harder to sanitize. Virginia Cooperative Extension (VCE) Publication 430-455 does recommend rubbing alcohol, but states that pine oil cleaners corrode metal blades. The VCE article recommends Lysol household cleaner and Listerine, which contains thymol, an effective sanitizing agent. University of Arizona Yavapai County Extension Agent Jeff Schalauske

in his “Backyard Gardener” article “Sanitizing Pruning Tools’ and University of Vermont Extension Professor Dr. Leonard Perry in his article “Cleaning Garden Tools’ both conclude that Lysol is the most effective, least corrosive cleaning agent to use on hand garden tools.

Soak the tools for at least five minutes, rinse, and air dry. Cleaning does not guarantee that disease won’t spread, but it does provide a measure of safety. There is one unanswered question: do I always disinfect and clean my garden tools? Let me just say that I have a little work to do on these cold days.

As a Master Gardener, I use trade names of specific products solely to provide information. I do not guarantee or approve of any specific brand.

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