Combating the Ravages of Time: Renovating Hopeless Tools!

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Sometimes, in the life of a Cooperative Extension employee, a colleague "happens to find" a tool that "someone else left outside." And they bring it to you because they know you have a strange taste for taking what looks like the office's new doorstop or paperweight, and making it a functional garden friend once again. The hunk of junk shown above was allegedly found outside our office, in the Eastern Maine Native Plant Arboretum. In honor of the cold winter days we patiently endure, looking ahead to the rebirth of spring, we're going to bring this pair of clippers back from the dead! The Master Gardener Volunteers at Rogers Farm know that I can be a bit of stickler when it comes to cleaning and maintaining tools, and I'm happy to pass that bug along. The simple steps detailed below will not only extend the life of your tools, but also save you money in the long run.

So, what is rust? Technically speaking it's an iron oxide, a substance created by chemical reaction that occurs completely naturally when iron is in the presence of water (either liquid or, under the right conditions, vapor in the air). The rust layer that forms does not protect the underlying iron, like one might see in the patina on the surface of a copper implement and the rusting process, given enough time and the right conditions, can and will eventually disintegrate the entire iron implement.

But we aren't going to let that happen to this particular prodigal toolbox son!

Step 1, The Vinegar Soak.

"*Our Garrick's a salad; for in him, we see oil, vinegar, sugar, and saltness agree. . .*" (Oliver Goldsmith)

First, I submerged the clippers overnight in the finest plain, white, distilled vinegar Hannaford has to offer. Normally, this would be done in a can of some sort, but the fancy glassware better showed what was going on inside. Vinegar is actually mild acetic acid and the iron oxide is mildly soluble in its presence—that's a fancy way of saying the rust will dissolve in the vinegar. After a few hours, bubbles of hydrogen can be seen coming off the rust deposits and rust solids can clearly be seen sloughing off in the vinegar and dropping to the bottom of the container. Chemically, the iron oxide has been converted into hydrogen gas and iron acetate, which precipitates into a pile.

Step 2, The Scrub.

"*We all make mistakes as the hedgehog said as he climbed off the scrubbing brush*…" (Anne Sullivan)

The American Academy of Family Physicians recommends that the average American should get 30-60 minutes of exercise each day for optimal health. We at the Cooperative Extension want to help you do just that! So, here comes the "elbow grease" portion of our renovation project. After rinsing the vinegar from the clippers, a good scrubbing with a decent wire brush will remove many of the remaining rust deposits, which will already have been 1) greatly diminished in number, and 2) loosened significantly by the vinegar.

Depending on the sort of tool you have, and the extent of rust it's suffering from, it may be helpful to take the tool apart using an Allen wrench set and clean the components individually. This will be easier with high quality tools, which are made for easy disassembling. It may also be helpful to have a few different sizes of wire brush, so that you can reach inaccessible nooks, crannies, and grooves in the tool architecture. But much of your work can be accomplished with a regular old brush, some gumption, and patience.

Step 3, The Second Pass.

"One only needs two tools in life: WD-40 to make things go, and duct tape to make them stop." (G.M. Weilacher)

Wash and dry the clippers again. If you would like, you can repeat the vinegar treatment until acceptable results are had, but be warned that it may be slow as acetic acid is a relatively weak acid. I generally break out the WD-40 at this point and apply a thin coat to the metal parts, then scrub again with the wire brush. The thick deposits of rust will come loose, but you'll notice that the metal now looks brownish and dull—this is the slurry of solvent and rust particles. Wash and dry the clippers (a dish brush or just rough pressure from your fingertips will help remove the greasy residue) and you'll see bright metal shining through.

Step 4, To your Taste, Repeat as Needed.

"*Happiness is the longing for repetition*. . ." (Milan Kundera)

Continue this process 1-3 times, depending on how much rust there is and how new you want the clippers to look.

Step 5, Remember to Preserve your Efforts.

"*The art of progress is to preserve order amid change and to preserve change amid order*…" (Alfred North Whitehead)

The metal parts of the clippers are now squeaky clean, rust-free . . . and super vulnerable to rusting once again. Prevent this by rubbing the tool with a light sheen of boiled linseed or tung oil to seal the metal and lubricate moving parts. The WD-40 from Step 3 is primarily a solvent, not a lubricant, so oiling is essential. NB: both boiled linseed and tung oils are volatile—carefully read the container instructions for use and storage. Finally, given what this tool looked like when we got started, it's entirely reasonable to assume it may need sharpening at this point, as well. Be sure to re-oil the cutting surface afterward.

Step 6, Briefly Admire the Results, Then Get Back Out There!

Et voila! What might have looked to be garbage to the amateur eye is now renovated and ready for action. Clean it thoroughly of any dirt and debris each time you use it, remove sticky or gummy substances on the surfaces, and oil it periodically to keep it looking amazing and working hard for you for years to come (both boiled linseed and tung oil are great for sealing and maintaining wooden tool handles, too).

There are other methods for renovating and cleaning tools, but this is an effective way to do the job with tools you either already have on hand or can acquire for a reasonable cost. Good gardening!