

Equipment Maintenance for Invasive Tools

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*Many of these items, including puller bars, are available for free check out from the SWCD Tool Loan Program.
www.hamiltonswcd.org/toolloan

Pruner/Lopper

- **Cleaning:**
After each use, clean pruners with a damp cloth or paper towel, or soak the blades in warm water. You can also use a cotton pad soaked in rubbing alcohol or hydrogen peroxide or disinfecting wipes. To remove sap, you can apply paint thinner to the blades and rinse it off.
- **Sharpening:**
Regularly inspect the cutting edges and sharpen them as needed. You can use a sharpening stone, file, or a specialized sharpener for pruning shears. Start with a coarse file, pushing it along the beveled edge of the blade in the same direction. The blade should turn a brighter color as it sharpens. Then, use a sharpening stone to smooth out the blade.
- **Lubricating:**
Use a non-petroleum lubricant like Felco Lubricant Spray or food-grade silicone spray on the moving parts. You can also use a drop of vegetable oil and steel wool to polish the blades and prevent rust.
- **Frequency:**
Well-maintained pruners only need sharpening every six weeks, even with heavy use.

Maintenance equipment list

- Sockets/Nut drivers
- Steel wool
- Soapy water bath
- Files
- Stiff Brush
- Hydrophobic grease
- Lubricating spray
- Paper towels

Puller Bears/Weed Wrench

- **Available for free check out from the SWCD Tool Loan Program.**
- Wipe the tool dry and apply a thin layer of rust-resistant oil to extend its service life.
- Spray lubricant on the hinge points after drying.
- Re-spray-paint as needed to prevent rust.

Maintenance equipment list

- Cloth Towel
- Lubricating Spray
- Silicone Spray
- Stiff Wire Brush

Gloves

- Regularly clean gloves as per manufacturer instructions to remove dirt, chemicals, or contaminants. Proper maintenance, such as drying gloves thoroughly after cleaning, helps prevent deterioration and ensures comfort. Store your gloves in a clean, dry place away from direct sunlight and chemicals.

Maintenance equipment list

- Stiff Brush

Hori-hori “Soil Knife”

- After using the hori-hori, please clean the blade and handle promptly to ensure they remain sharp and durable. Wipe the blade dry and apply a thin layer of rust-resistant oil to extend its service life.

Maintenance equipment list

- Cloth Towel
- Silicone spray
- File

Channellock

- Wipe the tool dry and apply a thin layer of rust-resistant oil to extend its service life.

Maintenance equipment list

- Cloth Towel
- Silicone spray

Hand Saw

- **Sharpen:**
Sharpen the saw as needed, which depends on how often you use it. Frequent users may need to sharpen every few weeks or months, while less frequent users may only need to sharpen once or twice a year.
- **Lubricate:**
After each use, lubricate the blade with gun oil, paste wax, or WD-40 to prevent rust and help the saw slide through wood.
- **Oil the handle:**
If the handle is wooden, periodically apply boiled linseed oil to seal it from moisture and dirt.
- **Clamp in place:**
Before sharpening, clamp the saw in place with a vice to ensure stability and prevent the saw from moving.
- **Remove rust:**
Use a razor blade to carefully scrape the blade, going up and down the length of the blade. You can also use medium steel wool or 320-grit sandpaper to scrub stubborn spots.
- **File the teeth:**
Start with the tooth nearest the handle and use short, controlled strokes against the blade.
- **Store in a dry place:**
Store your saw in a dry place or toolbox to prevent rust.
- **File the corners:**
File the corners of the blade so there are no marks on the saw board.

Maintenance equipment list

- Sockets/Nut drivers
- Steel wool
- Blade Files
- Wire Brush
- 3 in 1 Oil
- Paper towels

Shovel

- **Cleaning:**
After each use, rinse the shovel with water to remove dirt and mud. For tougher dirt, use a stiff brush or steel wool. You can also spray the shovel with a garden hose. After cleaning, dry the shovel with a towel or let it air dry to prevent rust.
- **Sharpening:** Sharpen the shovel's edge with a file when it becomes worn down. How often you need to sharpen it depends on how often you use it and the type of soil you use it in. For example, sandy or rocky soil can quickly dull a shovel.
- **Preventing rust:** To prevent rust, you can apply a thin layer of oil to the shovel's metal parts. You can also spray the shovel with a plant-based oil or vegetable spray. Avoid petroleum-based oils.
- **Inspecting:**
Regularly check the shovel for damage, such as cracks or bent edges. Repair or replace any damaged parts.
- **Storing:**
Store the shovel in a cool, dry place when not in use. Hang it or store it upright to prevent warping.
- **Tightening:**
Periodically check and tighten any screws or bolts to maintain stability.

- **Following manufacturer's recommendations:**
Adhere to any specific guidelines or recommendations provided by the manufacturer for maintenance.

Maintenance equipment list

- Screwdriver/Nut Driver
- Soapy water bath
- Files
- Stiff Brush
- Lubricating spray
- Paper towels

Axe/Hatchet/Mattock/Pulaski/Pickaxe

- **Clean:**
After each use, clean the axe head and handle with a damp cloth or sponge to remove dirt, sap, or debris. For tougher dirt, you can use a mild detergent. Avoid using harsh chemicals or abrasive materials.
- **Dry:**
Make sure to dry the axe thoroughly after cleaning to prevent rust.
- **Oil the head:**
Apply a light coat of oil to the axe head to preserve it and prevent rust. You can also use petroleum jelly for long-term storage.
- **Oil the handle:**
Apply oil to the handle to prevent it from drying out and wearing out. The best time to treat the handle is on a warm, sunny day. You can wrap the handle in a paper towel saturated with oil, then leave it in the sun for 1–2 hours. You can also apply bee's wax to the handle to make it tackier and increase grip.
- **Inspect the handle:**
Check the handle for cracks or splitting and replace it if needed.
- **Protect the leather mask:**
If your axe has a leather mask, protect it from the environment to keep it in good condition.
- **Sharpen:**
When sharpening the axe, keep the tool or sharpening medium stationary. You can try setting the axe head on edge on a stable surface or hanging the bevel off the edge of a low bench.

Maintenance equipment list

- Screwdriver/Nut Driver
- Soapy water bath
- Axe File
- Stiff Brush
- Lubricating spray
- Linseed oil
- Paper towels

Hand sprayer/Backpack Sprayer/Large Tank Field Sprayers

Key aspects of herbicide tank sprayer maintenance:

- **Cleaning the tank:**
 - Flush the tank completely with clean water after each application to remove herbicide residue.
 - Use a dedicated tank cleaning solution if necessary to remove stubborn buildup.
- **Filter maintenance:**
 - Check and clean the strainer or basket filter regularly to prevent debris from entering the spray system.
 - Remove and clean filters thoroughly.
- **Nozzle inspection and cleaning:**
 - Regularly inspect nozzles for wear, damage, or clogging.
 - Remove and clean nozzles with a brush or appropriate cleaning solution.
 - Replace worn or damaged nozzles to maintain consistent spray pattern.
- **Calibration:**
 - Calibrate the sprayer before each spraying session to ensure accurate application rates.
 - Use a flow meter to measure the output of each nozzle.
- **Leak checks:**
 - While the system is pressurized, visually inspect all connections and hoses for leaks.
- **Winterizing:**
 - Before storing the sprayer for an extended period, thoroughly flush the entire system with clean water and add an antifreeze solution to prevent freezing damage.

Important considerations:

- **Chemical compatibility:**
 - Always consult the herbicide label for specific cleaning instructions and compatible cleaning solutions.
- **Safety precautions:**
 - Wear appropriate personal protective equipment when handling herbicides and cleaning the sprayer.
- **Proper disposal:**
 - Dispose of leftover spray solution and rinse water according to local regulations.

Other tools that may need maintained:

- **Chainsaws**
- **Forestry Saw**
- **Ethanol Free Gas**
- **Rubbing Alcohol Dip**
- **Shoe Brush**
- **Hard Hat**
- **Chaps**
- **Chain/Pull Rope**
- **Chainsaw**

Maintenance Tool list

<u>Item</u>	<u>SKU</u>	<u>Vendor</u>	<u>Price</u>
Sockets/Nut drivers	Item #5996331 Model #53418	Lowes	\$19.98
Steel wool	Item #138695	Lowes	\$4.98
Soapy water bath	Tote Item #2565518	Lowes	\$1.98
Files	SKU # D2K	A.M. Leonard	\$31.95
Corona Brand Pruner file	SKU # AC83	A.M. Leonard	\$14.47
Stiff Brush	Item #3846360	Lowes	\$4.98
Knife Sharpener	SKU # 102C	A.M. Leonard	\$17.40
Hydrophobic grease	SKU# F980	A.M. Leonard	\$16.53
Lubricating spray	Item #1151615	Lowes	\$10.98
Cloth towels	Item #637571	Lowes	\$29.98
Rubbing Alcohol Dip	Model # S-15966	Uline	\$40.00
Nut driver set	Item #5427309	Lowes	\$32.98
Files	SKU # TSS	A.M. Leonard	\$26.28
Chainsaw field sharpening Kit	Item 39FY83	Grainger	\$23.31
Universal chainsaw tool	1WVE7	Grainger	\$8.50
Silicone spray	Item #363002	Lowes	\$8.98
Shoe Brush	Item #6635601	Lowes	\$34.76
Paper towels			
Nitrile Gloves			
Chemical Safety Goggles			

Invasive species information including identification, treatment calendars, management techniques etc. available at www.hcinvasives.org.