

TOOLS OF THE TRADE FACT SHEET

If you want to do a prescribed burn, you'll need the right equipment to get started. These tools will help you prepare both inside and outside a burn unit and help you build the control line around it. Having a tool with you during a burn is just as important in case of escaped fire and controlling fire behavior.

Wearing the Right Gear

Keeping yourself safe is important! Wearing the right protective gear when working on preparing and burning your property is the key. You need to be protected against heat and embers from the fire and avoid wearing synthetic materials that may melt onto your skin.

Personal Protective Equipment (PPE)		
Professional	PPE Comparison	Landowner
	Hard hat or cotton hat	
	Eye protection	
	100% cotton, wool, or Nomex shirt that are long sleeved and	
	full-length pants	
	Leather gloves	
	Walkie talkies or agency radios	
	Leather boots	

Preparing your Site

You need tools to prepare your site for burning. This includes limbing up branches, cutting ladder fuels (small trees and shrubs), and removing logs or other heavy fuels. Then removing the branches, logs and small trees through green waste removal or pile-burning. Here are tools commonly used for this work.

- Loppers or pruning shears can be used to cut lower branches or small trees and shrubs.
- Weed eaters are good for trimming down grasses, bramble, and small shrubs. They can be helpful for making your initial path for your control line.

- Chainsaws take more training and skill but are useful for cutting down small trees you can't get with loppers or cutting logs into smaller pieces that are easier to move or pile burn.



Control Line and Fire Tools

Once you've removed the ladder and heavy fuels in your burn unit, you'll need to construct your 4-foot-wide control line, or a trail, around it. This involves scraping away vegetation, leaves, and duff all the way down to bare, mineral soil. Removing anything that can cause fire to burn across your control line. This includes roots you may need to dig up. It's also a good idea to scrape or rake around trees with scars, pitch or hollows that can catch on fire and be hard to control. You may also want to rake around large trees and other things like water lines that you don't want to burn. These steps are vital for keeping your fire inside the unit, protecting structures, and preventing fire escapes.

Once you are ready to burn, your tool will be important to have with you to maintain control lines, spread fire in the unit, and control fire behavior.

The most popular tools for preparing your control lines and working with your fire are Mcleods, rakes, or plain old shovels. McLeods are the best overall tool to have.



For other tools commonly used, see the table at the end.

Tool Safety & Maintenance

It's important to use your tool safely and keep it maintained. It's part of responsible burning. When using a tool:

- Aim the sharpest side down when walking with it
- Be at least a tool and half length's away or 10 feet from people to avoid injuring others

- Do not swing it overhead
- When putting the tool down, place the tool sharpest side down, off the walking path, and outside the burn unit. Place Pulaskis on their side
- Tools with Fiberglass handle will melt & burn near fire so keep them away from the flames.




For maintenance:

- Clean and dry after use
- Inspect blade and tines for chips and bends; get sharpened if needed
- Inspect for bends in metal
- Inspect handles and tighten if needed
- Properly oil, fuel, and maintain power-equipment in accordance with their manufacturer manuals

Well maintained tools are important to safely control a fire. A broken tool does no good and may make you more liable if anything goes wrong.





Lighting your Fire


You need to start your fire, and depending on the vegetation, weather, and topography, you may need different ways to light it. Here are common ways to put fire down.

Fire-Specific Equipment			
	Description	Uses	Safety
 <p>Driptorch</p>	Canister of fuel with wick on end for fire to ignite fuel. 3 parts diesel to 1 part gasoline.	Used for burning a unit quickly and efficiently	Always keep the wick facing upward when not igniting. Be conscious of fuel leaking from torch to clothes. Always make sure the loop in the stem of the wick is facing away from you.
 <p>Lighters</p>	Small device used to ignite small spots of fuel or a driptorch	Useful for burning a unit without buying lot of fuel or putting fuel on the ground	Keep lighter in your pocket and away from fire to keep it from overheating
 <p>Matches</p>	Wooden sticks with red phosphorus that ignite quickly and used to ignite small amounts of fuel or driptorch	Most cost effective and safest way to burn a unit but will be very slow.	Keep dry and away from heat

Bringing Water to Your Burn




Water is one of the most important things to have when burning. It helps you control the fire's behavior, prevent fire from spreading outside your burn unit, and to make sure all heat is gone once your prescribed burn is done.

Water Equipment			
	Description	Uses	Maintenance & Safety
 <p>Garden Hose</p>	<ul style="list-style-type: none"> • Typically ¾" • Attaches to house or residential spigot 	<ul style="list-style-type: none"> • Spray water to control fire behavior • Put water on logs and stumps that typically take a long time to burn. 	<p>Rubber & cotton hoses can melt & burn if left too close to fire.</p>
 <p>Spray Nozzle</p>	<p>Control water flow and pressure, jet spray is essential for hard-to-reach places and metal is best</p>	<ul style="list-style-type: none"> • Great for mop-up and controlling fire behavior • Put water on smoldering stumps and logs 	<p>Rubber nozzles can melt if too close to fire; metal nozzles are preferred</p>
 <p>Backpack Pump</p>	<p>2-5-gallon backpack with wand used for manually dispensing water</p>	<ul style="list-style-type: none"> • Extinguish, soak, or cool down fuels • Reach areas easily without laying out hose 	<ul style="list-style-type: none"> • Bags often leak • Bag can melt if too close to fire • Empty water in bag and wand and let dry when storing
 <p>Portable Water Tank</p>	<p>Plastic or metal water tank that can be moved by hand or with a truck. Has a hole on the top to fill with water and at the bottom to attach a pump or hose directly</p>	<ul style="list-style-type: none"> • Water to control and mop-up fire. Best for larger burns or areas that are not close to water lines or spigots. • Use gravity feed or pump for more water pressure. 	<p>Let dry and store in a cool, dry location</p>

 <p>Portable Water Pump</p>	<p>Pump used to transport water at changeable water pressures</p>	<ul style="list-style-type: none"> • Pump water over long distances • Change water pressure to increase spray distance 	<p>Follow manufacturer's manual for proper use, care, and storage</p>
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Tool Glossary

This is a summary of all the main tools used on prescribed fires and what each one is used for.

Tools for Preparing and Burning	
Tool	Uses
 <p>Hard Rake Soft Rake</p>	<ul style="list-style-type: none"> • Initial control line clearing & cleanup, raking leaf litter & duff away • Carrying/moving fire down a burn unit • Clear around hazards & values at risk (i.e. larger trees, nearby shed outside burn unit)
 <p>McCleod</p>	<ul style="list-style-type: none"> • Building the control line, both scraping & raking • Carrying/moving fire down a burn unit • Stamping out fire • Scraping during mop-up • *Most recommended tool for prescribed fire*
 <p>Rogue Hoe</p>	<ul style="list-style-type: none"> • Initial fire control line clearing, specifically in heavier duff & leaf litter • Chopping small roots & trees • Stamping out fires • Scraping during mop-up



Pulaski

- Cutting/grubbing out exposed roots and small stumps
- Limbing small branches
- Felling small diameter trees



Shovel

- Smothering fire with dirt
- Stirring up water & dirt



Pitchfork

- Carrying/moving fire down a burn unit
- Lifting piles of cut vegetation



Leafblower

- Can clean off leaf litter off control lines
- Can help catch dry out fuels



Loppers

- Limbing and chopping small limbs, trees, and brush



Weed Eater

- Metal blade for chopping down small trees and brush
- Trim down grasses near control lines and trees



Chainsaw

- Cutting small trees, limbing up larger trees and cutting logs into manageable sizes
- Wear proper personal protective equipment! Hard hat, eye protection, ear plugs, chainsaw chaps, and leather boots