



UI Extension Forestry Information Series II

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Ten Tips for Burning Slash Piles

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Slash treatment is often necessary after harvesting in Idaho forests to reduce fire hazard and comply with Idaho slash management laws. Piling and burning is the most common slash treatment method. Here are a few pointers on effectively reducing slash hazard through piling and burning.

1. Do you need to pile and burn? Right away? Some landowners pile and burn slash almost automatically, but for light thinning or other treatments that produce relatively small amounts of slash, lopping and scattering may be all that is needed, especially on small units. Where piling and burning is required, leaving the slash distributed across the site for one winter will capture more of its nutrients for the site, if feasible.
2. Locate the pile in a good place. Avoid building piles within 10-20 feet of trees you want to keep. Trees too close to a pile can be scorched and either killed outright or stressed and subsequently killed by insects taking advantage of that stress. Trees need more space from larger piles than smaller piles. Slash piles can also damage the soils underneath them. While a very small percentage of the site is usually damaged by pile burning, if you have areas that have already been impacted by past burn piles, using them again will reduce potential impacts, much as re-using designated skid trails reduces soil compaction. Machine piling on dry or frozen soils also reduces soil impacts.
3. Build piles tall and compact. A given amount of slash will burn more completely in a tall, small foot-printed pile than a broader, looser pile. Building the pile tightly (little air space), also results in a more complete burn.
4. Keep the dirt out of the pile. Slash piles with a lot of dirt in them are hard to burn. They can hold smoldering fires long after they are ignited – even into the next fire season! Building piles by hand, using excavators, or piling with a brush blade all help reduce the amount of soil in a pile. Building a 2-10 foot wide fireline (scrape away the duff down to mineral soil) around each pile also helps to insure against fire escape.
5. Avoid putting coarse woody debris in the pile. Under Idaho law, the only slash that has to be treated to reduce fire hazard is material smaller than 3 inches in diameter. There can be some fire hazard associated with larger materials, depending on the volume, but it is the small stuff that ignites and carries a more fire more readily. It can be difficult to keep all large diameter material out



Keep your slash piles clean - piles with a lot of soil in them are hard to burn.

Photo by Robert Barkley, Idaho Department of Lands.

of piles, especially when slash is piled mechanically, but leaving the coarse woody debris out of piles, means fewer, smaller piles. Leaving coarse woody debris scattered across the woods benefits both forest soils and wildlife. It can also provide micro-site advantages to seedlings and inhibit cattle and big game browsing.

6. Keep the tinder dry. Slash piles are often burned when the adjacent forests are too moist to burn, to reduce forest fire risk. Putting some plastic or tar paper on a third or more of top of the pile insures some dry material to get the pile burning.
7. Get a permit. Depending on the time of year and current fire conditions, you may need a permit to light your piles. Permits are required by Idaho code May 10-Oct 20. Local jurisdictions may have additional requirements. Permits are usually secured through your local fire protection district office.
8. Got the necessary tools? On the day you light piles, it is important to have firefighting tools (e.g., Pulaski, shovel, and ideally, at least 100 gallons of water in a tank) to deal with any spot fires that might escape from the piles.
9. Is it a good day to burn? Most piles are burned in the fall, when the piles are dry and the coming wet, cold weather will help to make sure the fire is out after most of the fuel is consumed. Avoid especially windy days, to make sure fire stays in the piles. Beyond the season of burning, ask your local fire protection district or the fire warden at your local IDL office about current burn conditions, as these offices are working with other forest owners who are burning slash piles as well. Also ask them if it is a good time to burn regarding air quality. Many in the forestry community are concerned they may not be able to burn in the future because of air quality concerns. To the extent prescribed fires reduce wildfire risk, public health risk is reduced (a little smoke, when we can control it vs. a lot of smoke filling a whole valley weeks at a time), but in the short term, some environmental conditions are better than others for air quality risk from pile burning.
10. Multiple piles? If you have many piles to burn, don't light them all at once. Just light enough of them for you to handle, in case anything gets out of hand. Since fires usually burn up-hill, it is also

a good idea to light the piles on the top of the hill first, then work your way down to the lower piles. Lighting the piles on the perimeter of the unit first is also helpful because once they are consumed they provide some fire break between the interior piles and the rest of the forest.

With the growing interest in bio-fuels it is becoming feasible on some sites to pile, then chip the piles and haul them off to a site purchasing biomass fuel. However, even with growing use of slash for bio-fuel, there will probably be times and places where the economics do not work out and forest owners will still end up piling and burning.

References

- Bennett M. and S. Fitzgerald. 2008. Reducing hazardous fuels on woodland property: disposing of woody material. Extension Bulletin 1574-E. Oregon State University Extension Service. 5p.
- Shiplett, Brian M. 2005. Take the risk out of slash-burning. IDL State Forester Forum - Fire Management #2. (<http://www.idl.idaho.gov/bureau/ForestAssist/foresterforum/firemngmt2.pdf>)

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Keep slash piles dry to insure some dry material to get the pile burning.

Photo by Chris Schnepf, University of Idaho Extension.