Eliminate Brush Piles Safely

Late March and into April are the prime time of year to manage native pastures with prescribed fire. This is also the time of year when we can think about managing pasture brush piles. Incorporating the brush pile into a prescribed burn is one management option that requires pre-planning. The piles can also be dealt with alone.

Safety should be top of mind. Aim for the season when surrounding vegetation is actively growing, with high moisture content. This can vary based on the pasture forage type. Be cautious if there is still vegetation left from last season around the pile, the green stuff can still burn, so always monitor the pile during the burn and have adequate suppression equipment available.

Brush piles should be burned when wind speeds are less than fifteen miles an hour and not gusty. Wind direction should be considered, to move the smoke away from main roads or homes. Relative humidity greater than forty percent can reduce the chances of embers igniting spot fires downwind. Brush piles can smolder for days, even weeks. Therefore, after selecting the day of the burn, check the weather for the next three days, especially when those brush piles have lots of tree trunks or large amounts of soil were pushed in.

Brush piles can often be burned on a day when relative humidity is high or even when it is raining if the larger fuels have been dry for an extended time. Understanding this relationship between relative humidity and fuel moisture is important to minimize the risk of escape when burning a brush pile.

Ignite brush piles carefully using a drip torch, road flare, propane torch, or kindling, like hay or paper. Igniting piles by pouring flammable liquids and a lit match should be limited to less flammable fluids; kerosene, charcoal lighter fluid, or an equal mix of diesel and gasoline. Only pour flammable liquids on a small area. Using gasoline is dangerous and can lead to serious injury and escaped fire.

Igniting a brush pile on the downwind side will create a backfire causing the pile to burn slower, with a lower heat intensity and shorter flame lengths. The brush pile will take longer to burn, but this is a good method to use when containment needs outweigh the amount of time needed to burn the brush pile.
When monitoring burning piles, consolidate the partially combusted fuel into the pile using a front-end loader or by hand with a heavy-duty rake. This will ensure all the fuel is consumed and help to prevent escapes. Care should be used to prevent injury or equipment damage.

Because of the amount of coarse fuel piled in a small area, heat effects on the soil can be extreme. The soil can become temporarily sterile and remain bare of plants for quite a while, but it is temporary. In addition, the heat from the fire can top kill surrounding trees.

For more information on brush pile management, contact Wendie Powell, Livestock Production Agent, (620) 784-5337, wendiepowell@ksu.edu.

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