

## How to Mulch with Less Fire Danger

Leimone Waite, Master Gardener, Oct. 12, 2018

**Q:** I recently read that all organic landscape mulch is combustible and shouldn't be used on landscape due to the fire risk. However, for years I've been told that using mulch is a good practice because it helps to reduce water use and protects and enriches the soil. I live in an area where there's green space behind my house, so fire danger is a high risk. Should I replace all my mulch with rock?

**A:** You are correct that organic mulches provide many benefits for the landscape. Mulching can reduce water loss in the landscape by 25 percent or more, saving a significant amount of water. Mulch also keeps the soil and plant roots cool, which is important for plant health during our hot summers. If applied at least three inches deep, it can keep weeds under control, thereby reducing the need to use herbicides or spend hours pulling weeds or weed whacking.

Not all organic mulches have the same level of combustibility, speed of fire spread and flame height, according to a study done by researchers at University of Nevada Cooperative Extension. They tested the combustibility of eight common types of landscape mulches; they exposed the mulch to dry hot summer weather for two and a half months, then they ignited each type. These tests were conducted several times; each time they evaluated the flame height, rate of fire spread and temperature above the mulch bed. What they found was that all mulches were combustible given hot dry conditions, but they varied considerably in their flame height, heat given off and speed of fire spread. Composted wood chips and a single layer of Tahoe Chips – a product similar to what the utility tree companies produce, had the least hazardous fire behavior. The most hazardous mulches were shredded rubber and pine needles.



(Photo: Mary Catanese, NOW Photo by Mary Catanese)

Given this research, I would recommend using composted bark, shredded wood chips or medium pine bark in your landscape beds within the 30-foot defensible space zone around your home. However I'd avoid using any mulch in the area right next to your house.

The study recommends “not using any organic mulch within five feet of a house located in wildfire-prone areas. Instead, place non-combustibles such as rock, pavers, brick chips or well-irrigated low-combustible plants such as lawn or flowers closest to the house. The more combustible mulches should be used more than 30 feet from the home.”

Keeping plants near your home watered and the organic mulch moist will also help reduce the combustibility of the materials. I wouldn't recommend replacing all of your mulch with rock, as it does not provide the same cooling or soil improvement benefits that organic mulches provide. Using decomposed granite or gravel mulch in the areas against your house is a good idea as long as you keep it free of fallen leaves and other debris.

For the full article on the combustibility of different landscape mulches, go to <http://cetrinity.ucanr.edu/files/273030.pdf>

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