

## **MULCH FIRES-WHAT SHOULD THE LABEL SAY**

By Thomas Williams and Michael Lane

Mulch has become a popular decorative part of many suburban landscapes. It is sold in a variety of colors and textures. Yet, there seems to be an increasing number of fires in which the first ignited item is actually the mulch.

As investigators, we have seen “mulch” fires in New York, Maryland, and Pennsylvania. There are probably “mulch stories” around the country but most being handled as a routine matter in which little damage results. In Salisbury Maryland city firefighters responded and used water to quell what amounted to a flower bed burning covered with red mulch. The problem was that there was a building sitting along the bed of mulch with a combustible exterior. If not extinguished quickly a mulch fire can escalate to a major event from a troublesome small fire.

There is no way to know accurately just how often such fires occur. We only have an anecdotal record which is far from scientific.

Pictured below is a house in Rockland County, New York in which such an event took place. Forty five minutes before the event was reported by a neighbor, the family had walked in the area and did not note any problem. Three days before the fire the mulch was spread on flower beds by a family member.



We conducted some experiments with the actual offending mulch. Our results indicated that once fire is introduced to the dry mulch it smolders for about one minute and then there is rapid ignition along the top of the mulch. A strong breeze is a plus in the spread of the flames.





We were mindful in evaluating the scenario above that Jack Sanderson and Daniel Schuh wrote an article regarding their experiments on several potting soils <sup>1</sup>While much of their work was done regarding potting soil and peat moss there may be some serious concerns with mulch

We were unable to get a spontaneous combustion situation in a variety of tests with the dry mulch. Red mulch is essentially ground wood with a color additive. The actual product is as varied as manufacturers. The obvious problem in trying to duplicate a similar situation is that it becomes a case of “probability” Vs. “possibility” and that may leave the realm of science for a hopeful outcome based on your hypothesis.

The actual scientific cause of mulch fires may be varied. The one thing that can not be ignored is the potential danger from spreading wood around combustible buildings and other sensitive sites. There should be a warning label on the mulch indicating is potential fire spread.

#### ABOUT THE AUTHORS

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<sup>1</sup> Spring 2009, Vol.17 of Fire Findings Magazine CIGARETTE TESTING REVEALS DRY POTTING SOIL, PEAT MOSS CAN BE VIABLE FUEL SOURCES.

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