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Rubber Mulches - A Springboard to Controversy by Lydia Holley

Have you ever thought of putting rubber mulch on your flowerbeds? It might be tempting if you are tired of having to re-mulch every year. Rubber mulches are advertised as soft, safe and long-lasting.

Due to health and environmental concerns, the public outcry against rubber mulches has been so loud that some school districts have begun removing rubber mulches from their playgrounds, and some communities are banning the use of rubber mulches. Opinions aside, what have studies proved regarding this type of mulch?

Do rubber mulches impact plant growth? According to a Washington State University Extension fact sheet, the answer is yes. Zinc was shown to be very high in soils under rubber mulches, which may be the reason there were also a high number of tree mortalities as well as reduced growth rates and an increased number of yellow leaves on plants grown in rubber mulches.

What about fire risk? In a study released by the Journal of Arboriculture, shredded rubber mulches were resistant to lighting by a discarded cigarette; however, they easily ignited with a propane torch, and the flames were difficult to extinguish. Another study by the University of Nevada showed, of the mulches tested, shredded rubber mulches had the highest flames, averaging over 3 feet. Rubber mulches also burned the hottest—four inches above the mulch, temperatures averaged 630° F. However, the same study showed that flames spread the fastest in western red cedar mulch.

One more interesting fact: according to a 2013 study, rubber mulches are preferred by Asian cockroaches. That might not be concerning for homeowners in northern states, but Asian cockroaches are found in Florida, Georgia, Alabama, South Carolina and Texas. Asian cockroaches closely resemble German cockroaches, except Asian cockroaches fly.

The most important question, however, concerns health. Do rubber mulches present a health risk? Rubber mulches give off an odor in high temperatures, and at least one doctor has expressed concern about cancercausing and endocrine-disrupting chemicals present in the shredded tires used to make this product. Others disagree. A pediatric oncologist was quoted in <u>Sports Medicine</u> expressing his opinion that recycled rubber is safe.

What does the science say? The Recycled Rubber Council, The Institute of Scrap Recycling Industries, and the Synthetic Turf Council state that recycled rubber has been studied and is safe. They quote the conclusions of 90 studies over 28 years, including a study done by the Dutch National Institute for Public Health and the Environment. Still, due to the continued controversy of this product, the EPA and CDC are currently studying the issue. Unfortunately, their reports will not be completed until later this year, possibly longer.

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