

# Volcanos Erupting Everywhere

## *When Is Mulch Too Much Of A Good Thing?*

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An unhealthy fad has been spreading around many parts of the country invading our trees.

It is the practice of placing mulch "volcanos" around trees.

Mulching under trees has many significant benefits that will improve both the appearance of the landscape and the health of the tree.

Mulch volcanos do just the opposite. They advertise the lack of professional knowledge while damaging the health of the trees and they look silly.

While researching for this article, I read many fact sheets and flyers from extension services and gardening organizations. They represented all regions of the country from Louisiana and Maine to Alaska and states in-between. They all agreed on the benefits of mulch. Mulch will improve soil structure, reduce soil compaction and increase aeration, conserve moisture by reducing runoff and evaporation while improving water infiltration, moderate soil temperatures, reduce weed competition, protect tree trunks from mower or weed trimmer damage, help protect roots during construction and improve the appearance of the landscape.

There was variation of ideas on the depth of mulch and the types of mulch to use. Most agree that the mulch should be at least partially composted and placed not more than 4-5 inches deep. Less mulch should be used in areas with heavy clay or wet soils as well as when using fine textured mulch. In these instances the mulch can actually reduce aeration if applied more than 2-3 inches deep.

As a rule of thumb, coarser materials can be applied in a thicker layer than fine materials.



*"Volcano" mulching (top) can damage health of trees. Bowl shape (below) allows visibility of "root flare" and improves both appearance of the landscape and health of the tree.*

There was total consensus though, that the mulch should NOT be placed anywhere near the trunk of the tree.

Trees can die from having mulch piled high against their trunks. If they don't die they will have their health and vigor severely compromised.

Several problems result from the over-mulching including; lack of aeration in the root zone, roots growing up into the mulch, disease, mice and vole damage, excess heat and changes in the soil pH.

All plants need soil with a suitable balance of air, water and soil particles.

Mulch that is too deep can lead to waterlogged soils with little oxygen because the mulch slows water evaporation from the soil. Roots will start to die back if oxygen levels drop too much. The tree will start to show symptoms like chlorosis, abnormally small leaves, poor growth and even die back.

The decline may take several years.

One way a tree compensates is to grow

roots up into the mulch. During cool damp weather this may not be a problem but when the weather heats up and dries out the roots die from the lack of water in the mulch. The tree then declines from lack of water. This is particularly a problem with young trees whose roots have not extended much beyond the original root ball.

Trees growing naturally do not have their root flares covered with mulch. The root flare stem and trunk are different from the roots. They are not designed to be continually moist or covered and will start to decay.

Fungal and bacterial diseases that require moisture are able to gain a foothold in the decaying bark and are able to move into the tree.

Insects are then attracted to the stressed plants.

Mice and voles find the volcanos a nice protective cover while they gnaw away on the bark of the tree.

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# Volcanos

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Finally excessive mulch can decompose and generate excessive heat and may significantly change the local soil pH.

PGMS members can educate property owners and municipalities in their areas if the volcanos start to show up.

Encourage the use of mulch and encourage more mulch, but as wider rings around the entire drip line not deeper rings running up the trunks.

Lead by example and spread the word, stop the invasion!