

Recycled Wood Chip Myths

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After the holidays, living Christmas trees are recycled by chipping and reusing as landscape mulch. This prompts questions about disease transmission from wood mulch to living trees as well as other concerns, such as attracting termites. Most of the concerns are myths.

One concern relates to the possibility that pathogens in wood mulch from diseased trees could be transmitted to living trees. While this is not impossible, it is unlikely to happen.

For a pathogen to infect a plant, a specific set of conditions are needed. The living tree would need to be the same type of tree the mulch came from in most cases, and there has to be the right temperature and moisture levels for an infection to occur. These conditions rarely come together at the same time; and pathogens do not survive well in small, dry wood chips.

Few studies have shown a disease can be transmitted from wood mulch to a living tree. When it has happened, it was when mulch was incorporated into soil or piled against a tree trunk that had a wound.

If wood chips are used as a soil amendment, they need to be composted first. And never pile mulch against tree trunks. This provides a moist environment conducive to insects and disease pathogens, and can provide winter cover for voles who gnaw on trees during winter.

Studies show termites are not attracted to wood mulch. In Nebraska, we have subterranean termites. They nest in soil, not in the wood they feed on. They travel to feeding sites in moist soil and mud tubes because they cannot be exposed to sunlight.

While wood mulch does not attract termites, it might act as a bridge from soil to a wood structure if there is a nest nearby. For this reason, keep wood mulch one foot away from building foundations. Rake mulch now and then to disturb it. This prevents mulch becoming matted and holding too much moisture in soil or preventing moisture and oxygen entering soil.

Another concern with wood mulch is it steals nitrogen away from plants. This concern arises from the fact decay microorganisms use nitrogen to decompose dead plant material. While this is true, if wood mulch is placed on the surface and not incorporated into soil, it will not result in a nitrogen deficiency. A deficiency could happen if wood chips were incorporated into soil without first being composted.

Studies have shown nutrient deficiencies at the interface of soil and mulch that could affect seedlings and young transplants with shallow roots. This is why wood mulch is not used in vegetable or annual flower gardens. In landscape beds, where plants have deeper roots, there is not a concern.

With our dry weather and an increase in wildfires in our state, a new concern has been about the flammability of wood mulch next to a house. Studies show the most flammable mulch is crumb rubber. Next are fine textured mulches like sawdust or dry needles.

Of the organic mulches, wood chips are the least flammable. Between conifer wood chips and hardwood chips, conifer chips are more flammable than hardwood because there is more resin in the wood that could ignite. If conditions remain dry, it could be beneficial to moisten mulch now and then.

The benefits of wood mulch far outweigh any unlikely negatives. Go ahead and use recycled wood chips as landscape mulch around trees and other plants. Use a 3 to 4-inch layer around trees and shrubs and about 1 to 2 inches around perennials. Always keep mulch away from plant stems.