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### **Protecting young trees in the winter**

If you planted trees, shrubs, or other perennials this past year, you might be wondering: how do I help them through the winter? Young trees do face extra challenges, but you can take steps to help them survive and thrive into the spring.

The first thing to consider is water. All perennials can undergo drought stress in the winter if their roots get dehydrated. With younger trees, the roots are less expansive, making it easier for them to dry out. To combat this, check on any trees and shrubs planted less than 3 years ago twice a month to see if their soil is dry. You can use a rod or stick to see how moist the soil is a few inches under the surface. If the soil is dry, you can use a 5-gallon bucket with a 1/8-inch hole drilled near the bottom to let water slowly and deeply irrigate the soil.

To help the soil retain the moisture it receives, ensure there is a healthy layer of mulch around your young plants. You may have already mulched at the time of planting, but between wind, critters, and decomposition, it is a good idea to double check there is sufficient mulch for the winter. Ideally, you should have 3-inch layer of mulch extending at least 2 or 3 feet from the base. Make sure that the mulch is not touching or piled up around the trunk, as that can trap moisture against the bark and cause rot. Instead, create a donut shape with the mulch around the tree.

Mulching will also help prevent another issue: cold damage to roots. Overall, roots are not as cold hardy as stems and branches. Normally, soil provides insulation to keep roots warm. Around newly planted trees and shrubs, the soil is likely to have cracks or empty space from moving soil around. These cracks let cold air penetrate the soil and reach the roots. Mulch adds another layer of insulation to keep roots warm. The insulation from mulch also helps prevent the freeze-thaw cycle from causing soil to expand and contract around the roots, which can dislodge the plant or damage the roots.

You may also find that rabbits, voles, or other critters enjoy the taste of young, thin bark when looking for a winter snack. One of the best strategies to prevent animal damage is to discourage them from visiting. Mow the grass to 2 inches and remove any yard waste build up from the area to prevent small critters from finding a cozy home next to your tree or shrub.

The second thing you can do is to make a physical barrier that prevents wildlife from reaching your tree. The type of barrier you need depends on what kind of wildlife are trying to snack on your plants. Make sure that whatever barrier you build lets the trunk or stem remain exposed to the air. Piling up materials against the base of the trunk will do more harm than good.

In addition to hungry animals, sunscald can cause severe bark damage, especially on species with thin bark such as honeylocust, fruit trees, ash, oaks, maples, lindens, and willows. When the sun heats up the thin bark it can trick the tree into thinking that it's time to wake up from dormancy. The cells in the trunk then start to become active, resulting in less cold hardiness. When night falls and temperatures drop, the tree is not as prepared to handle it, causing frost damage, or sunscald. The affected bark will later crack and peel off, leaving your young tree with a wound that is open to infection.

To prevent sunscald, wrap the tree trunk in a light-colored plastic or paper from the ground to below the first branches. The light color will reflect light and reduce how hot the bark gets. Never use a brown or dark colored material, as that will absorb light and make the bark hotter. Generally, wrapping trees for their first winter is sufficient. For thin-bark trees, you may want to wrap them for winter as well. Make sure to check the wrapping before the second winter arrives to ensure it is not too tight or deteriorated.