

Use of Antitranspirants on Evergreens

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With our dry fall, I've been asked if antitranspirants should be applied to evergreens to reduce water loss during winter. Examples of these products are Wilt-Pruf®, Transfilm®, Vapor Gard® and Moistureloc®.

The material forms a film over leaves to reduce water movement out of leaves. To help reduce winter desiccation, these products may be recommended for some evergreen conifers and broadleaf evergreens like boxwood.

There are mixed reviews in scientific literature and Extension publications on how well these products work and if they can be harmful to plants; making it difficult to make recommendations. One concern for plants is that the increase of water in foliage may increase the risk of freeze injury.

While antitranspirants may be helpful when used correctly and at the right times, the best way to reduce winter injury is to select the right plant for the growing site and water well during summer and through fall. Correct watering is moistening, not saturating, the soil at least 12 inches deep for trees and shrubs, then waiting for the soil to dry before watering again.

If you use an antitranspirant, they may be most helpful on young or newly planted evergreens with under-established root systems, and on evergreens planted in locations exposed to wind, hot sun such as the south side of light colored homes, and near pavement.

When applying antitranspirants to evergreens for the purpose of reducing winter desiccation, use the following points.

Read and follow label directions carefully for application, including reapplication, to avoid plant damage and maintain effectiveness through the winter. Use the winter application rate.

Check the label for precautions to use with certain plants. Some plants are sensitive to some products. For example, the Vapor Gard® label says not to use on arborvitae.

It is best not to use these products on blue spruce or other plants with bluish, waxy coatings on their leaves. These products wash away the wax and blue color and this waxy coating is the plant's own natural antitranspirant.

Wait until plants go fully dormant, usually after Thanksgiving, to make the first application and plan to make at least two. The product wears off, possibly in as little as 5 weeks depending on the product, plant, and environmental conditions. It is during late winter when the most severe desiccation injury occurs.

Temperatures need to be above freezing when applications are made with 3 to 4 hours of drying time after. Leaves lose moisture from upper and lower surfaces so cover both leaf surfaces to the point of runoff.

Antitranspirants are thick materials that can be hard to mix in cold water. To make mixing easier, premix them in warm water before adding to the spray tank.

It is important to flush and clean a sprayer immediately after applying one of these products to avoid clogging nozzles and screens. The material dries quickly.

In place of antitranspirants, a burlap screen can be used to protect susceptible plants. Place stakes a few inches taller than the plant around the plant or on the south, southwest and windward sides. Wrap burlap around the stakes and secure it. Avoid burlap on top of the plant as it can sag with heavy snow to damage branches and it would reduce needed air circulation.