

This is a printer-friendly version of an article from Zip06.com.

Article Published January 28, 2015

Ice Melt Products Can Damage Lawns and Gardens

Kathy Connolly

Simplicity is a beautiful thing, but you won't find it in the topic of ice- and snow-removal products. A bewildering array of ingredients are inside these bags, all with a different chemistry for solving our safety problems.

Unfortunately, products that increase sidewalk safety for people may not be safe for the lawn or garden you lovingly tended last summer. The problem is not limited to the area immediately next to sidewalks and driveways. Ice melt products can travel across the lawn or garden when winter rain creates a river over an ice sheet or frozen soil.

How concerned do you need to be? Academic studies show that Kentucky bluegrass, one of the most common lawn grasses in North America, is highly susceptible to salt damage. Fescue, another common lawn grass, is only moderately tolerant of salt.

The good news for lawns and gardens, if there is any, is that spring rainfall dilutes the effects. Also, the problem doesn't affect all plants equally; some are far more susceptible than others. Some show damage initially, but with enough water early in the growing season, they bounce back.

It is hard to find lists of "plant-safe" ice melt products, but here are three rules of thumb to avoid plant damage:

1) Less is more. In preparing this article, I found manufacturers making this point repeatedly. Apparently, people have a tendency to overuse these products, and it's easy to see why. When it's cold outside and you're trying to get a job done, it's tempting to toss and run without regard for quantity. This is not only threatening to plants, but ice melters can be unsafe for birds, pets, and children, as well. Some products are corrosive to metal and concrete-particularly when the concrete is less than one year old. De-icers can also pollute ponds, streams, or lakes on or near your property.

2) Caution with chlorides. When sodium chloride, calcium chloride, magnesium chloride, and potassium chloride are on the ingredient list, be aware that these pose the greatest potential for plant damage-especially if over-applied.

Many products today use combinations of chloride and non-chloride products. This is an attempt to cover a wide variety of ice and snow conditions while at the same time limiting potential damage. If you look carefully at the formulation, however, you may find that "sodium chloride" dominates the mix-sometimes by as much as 95 percent. Buyer beware, especially of inflated prices for minimally enhanced products.

3) Coloring agents may be helpful. Contrasting color can help you know where products are actually spread. Some are formulated to change color as their effectiveness decreases. Color can limit

the guess work, so these products may be worth considering.

If you like lists, the U.S. Environmental Protection Agency (EPA) offers a list of 22 de-icers with safer chemistry by giving them the Design for the Environment (DeF) seal. (See www.epa.gov/dfe/pubs/projects/formulat/formpart.htm#44), but note the EPA's explanation: These have been selected because they contain "only those ingredients that pose the least concern among chemicals in their class."

Leadership in Energy and Environmental Design (LEED), the green buildings certification rating system that aims for positive environmental outcomes, also offers some guidance. Products of 100 percent calcium magnesium acetate meet LEED standards. LEED discourages products with more than 5 percent sodium chloride, calcium chloride, magnesium chloride, or potassium chloride.

When you compare product costs, remember to compare apples to apples by comparing application rates. If a product costs more but avoids expensive lawn and plant damage (or other forms of damage), the cost avoidance should be considered as well.

Finally, it would be difficult to put a price on safety for children and pets.

Kathy Connolly is a landscape designer, garden writer, and public speaker from Old Saybrook. Visit her website at www.speakingoflandscapes.com. Email her at kathy@speakingoflandscapes.com.