



Garden Tips from the Cheyenne Botanic Gardens version 6/16/2008
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SALT DAMAGE ON PLANTS

Salt is a broad term that doesn't refer just to table salt (sodium chloride) but describes the result of a chemical reaction occurring when acid compounds react with alkaline compounds. Certain fertilizers, both organic and inorganic, are noted for their potentially high salt content. Salt problems occur when high levels of fertilizers are used in soils and often show up in soils with poor drainage. It also can come from heavy application of salts used to melt ice on sidewalks. Salt problems can also be related to your source of water as some people live in areas with a high level of salt compounds in the tap water.

Besides a plant's showing signs of salt damage (usually brown tips of leaves to outright plant death), there is only one sure way to tell if you have a salt problem—with a soil test. It's almost impossible to escape some salt accumulation, but luckily, salts move with water. With heavy water applications, you can often leach the salts out to a level below the roots. This is why you hear the term "well-drained soil" so much. Salts tend to accumulate in the root zone of poorly drained soils.

Salt concentration also rises as your soil dries out. If a lot of water has been evaporating from your soil, you may actually see white salt crystals on the soil surface.

1. Leaf tips of margins brown.
2. Leaves Drop.
3. Soil Surface Gets a buildup of white powdery stuff (resembles ground table salt).
4. Slow growth.
5. Roots are damaged.
6. Micronutrient deficiencies may be apparent.
7. pH may be on the rise.
8. Plant death

Preventing Salt Damage

1. Go easy on fertilizing. Follow recommended rates; more is not better!
2. Go easy on ice melting salt products.
3. Avoid raw manures.
4. Be sure the soil drains well. A relatively high sand content helps if you have recurring problems with salt accumulation.
5. Leach salt-affected soil by applying three to four heavier-than usual waterings, then resume normal watering rhythm. This requires watering the soil until it puddles, once the puddles disappear, immediately water the area again until it puddles and repeat 3 to 5 times.