



## HEALTH & LIFESTYLE

# To Help Your Plants, Use Less Salt

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In the United States, people often use large amounts of salt to remove dangerous ice from roads and walkways in the winter. But when the spring arrives, all that salt can really damage plants in the garden. Salt is the chemical sodium chloride.

Salt pulls water from living cells, like plant roots and the healthy ground soil around them. So, spring growth may show up lighter in color than normal, or, in the worst cases, plants may simply die.

Rain can wash away much of the salt, permitting some older plants to live. Salt can also be removed by pouring a large amount of water on the ground where plants are growing. But the best action is to simply use less salt.

Researchers have found that putting a small amount of salt on a road works better to melt ice than dropping a large amount of salt **crystals**.

### Different salts

There are, of course, other things that can be used in place of sodium chloride. One is the chemical calcium chloride. It does less damage to plants and melts ice faster than salt. It also works when the temperature is below negative 17 degrees Celsius. Salt loses some of its effectiveness at temperatures below negative 12 degrees.

Still, calcium chloride does put chloride **ion**, which plants don't like, into the soil. It is also more expensive and can do more damage to cars.

Man-made chemical **fertilizers** are all salts. So why not use them to remove ice from the roads?

Well, they are even more costly, and they only work at negative 6 degrees Celsius.

Calcium magnesium acetate, also called CMA, has become a popular **alternative**. It is made by combining limestone, a type of rock, and **vinegar**. It breaks down naturally so it does not damage plants or soil. It stays on roads and does not hurt cars.

CMA does have problems, however. It is most effective at around negative 9 Celsius, just like salt. And it is better at stopping ice from forming rather than removing it. So, it is best placed on a road before the temperature gets very cold.

Some materials other than salt - such as sand or very small pieces of wood - can also work against ice. But they can be very messy.

### Use a holistic system

The best way to remove ice is through a **holistic** method. This involves using a combination of materials, such as salt and a bit of sand. If this mixture is used before ice forms, less is needed as the weather gets colder.

When placing plants in the ground near a road or where a car is **parked**, it is best to use common sense: choose a plant that is not badly affected by salt. Plants that are native to the seashore can usually stand up well to salt, like *Rosa rugosa*, a common beach rose.

Other examples of trees and plants that can resist the effects of salt include silver maple, honey and black locusts, poplar, junipers, lilac and Colorado blue spruce.

I'm Susan Shand.

*The Associated Press reported this story. Susan Shand adapted it for Learning English. Bryan Lynn was the editor.*

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## Words in This Story

**crystal** – *n.* a small piece of a substance that has many sides and is formed when the substance turns into a solid

**ion** – *n.* an atom or group of atoms that has a positive or negative electric charge from losing or gaining one or more electrons

**fertilizer** – *n.* a substance or a special chemical that is added to soil to help the growth of plants

**alternative** – *n.* offering or expressing a choice

**vinegar** – *n.* a sour liquid that is used to flavor or preserve foods or to clean things

**holistic** – *adj.* relating to or concerned with complete systems rather than with individual parts

**park** – *v.* leaving a car at a specific place

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