

# Beet it

As snow pros seek greener deicing methods, the sugar beet is stepping up. **BY BETH GERACI**



**W**HILE ROCK SALT IS earning a dubious reputation as a killer of plants, grass and infrastructure along highways, the friendly sugar beet is gaining cred as its viable, more environmentally sound alternative.

Not only are sugar beet-derived deicers more ecological; they also are effective thawing agents, say winter product manufacturers, government officials and distributors.

Cheap and effective, rock salt (sodium chloride) traditionally has been the thawing agent of choice on U.S. bridges and roads. But economical or not, there's a price to pay for using it in concentrated amounts, snow and ice professionals like Jay Walerstein say.

Walerstein is vice president of sales and marketing for Road Solutions, a manufacturer, blender and distributor of green deicing products such as Univar's liquid Ice Bite — which is among the most widely used sugar beet-based deicers on the market.

"When a salt spreader releases rock salt, it bounces all over," Walerstein says. "And then cars disperse it. And then the salt ends up in the medium, in the ditches, in the grass on the side, where it does absolutely nothing but kill the grass and shrubs with concentrated levels of rock salt and deteriorate the concrete."

Likewise, because of rock salt on its roads, "Minnesota is having its streams and lakes filled with so much saline that it's killing the fish," says Chris Wehri,

chemical sales manager for Fargo, ND-based Prairie Supply, a Midwest distributor of Univar's Ice Bite.

Sugar beet-based deicers aren't salt free. Rather, they're blended with salt products to enhance their effectiveness. That's because sugar beets alone are ineffective melting agents, Walerstein says.

Sugar beet-based deicers can be a combination of one of many blends: calcium chloride and beet juice; magnesium chloride and beet juice; potassium acetate and beet juice; or rock salt brine and beet juice. Of those, the rock salt brine and beet juice blend is the most cost effective, Wehri and Walerstein assert.

Rock salt stops working at about 15 degrees Fahrenheit, meaning it won't melt ice at temperatures below that, they say. Sugar beet derivatives, however, work even in sub-zero temperatures, lowering water's freezing point, Wehri says.

Galen Kauzlarich, Geomelt 55 sales manager for Iowa's Smith Fertilizer and Grain, says beet-based deicing products enhance the effectiveness of chlorides, making the roads less slick, for longer periods of time, with less corrosive runoff.

Geomelt 55 is a liquid sugar beet-based deicer consisting of 70 percent salt brine and 30 percent sugar beet byproduct. In its first year of business — 10 years ago — Geomelt sold 20,000 gallons of Geomelt 55, Kauzlarich says; today he sells exponentially more than that annually in his region alone.

More and more Midwestern and Eastern states are testing sugar beet-derived deicers on their roads, including Kansas, the Dakotas, Ohio, Illinois and a growing list of others. Last winter, the New York State Thruway Authority tested a beet-brine solution on Albany and Syracuse highways with positive results, says Betsy Feldstein, the Authority's public information officer.

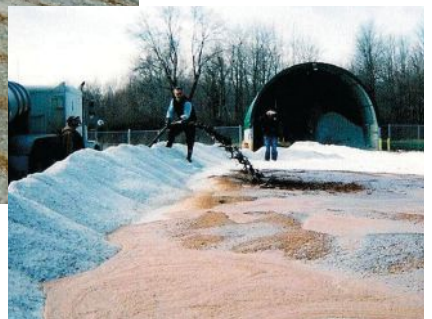
Slick pavement wasn't reported at any temperature, she says, and "the beet-brine mixture is organic and environmentally friendly." The beet solution also reduced refreezing on Albany highway ramps, Feldstein says, and "will not stain cars or roads, because so little of it is used and what is used is absorbed by salt and snow."

Walerstein's worked in the business for 11 years. "Let me tell you," he quips, "you can't beat the beet." **LM**



◀ A spray truck disperses a sugar beet-based deicer on the highway.

▼ Road Solutions employees treat 400 tons of rock salt with Ice Bite.



PHOTOS COURTESY: JAY WALERSTEIN (FAR LEFT); JAY WALERSTEIN (LEFT); STOCK/INTERNATIONAL INC.