







That passion came in handy when he and his team began exploring the possibilities of adding brine to their ice management operations about five years ago.

"Our organization is process and detail driven to the extreme. We embrace change and finding better ways of doing things. It's our passion," he explains.

For Turcan, the desire to implement brine was professional and personal. Professionally, he says implementing best practices will allow Cornerstone to protect its clients' properties and

> More stories on implementing liquids into snow operations are in the State of the Industry special section, starting on Page 29.

stay ahead of the curve on regulations that may come to the market. Personally, his wife, Kari, is a native Minnesotan and they've seen the destruction of lakes due to excessive chloride emissions.

"Minnesota is only six hours north of our market, and their waterways flow through Illinois," he says. "We made a conscious decision over five years ago to become a Chloride Conscious contractor and to reduce our chloride emissions by 20% by 2020."

Trial and error

With goals set, Turcan began exhaustive research online and meeting with local suppliers and exhibitors at the Snow & Ice Symposium. Before making a commitment, the Cornerstone team did its own field tests to see first-hand how well the products worked (or didn't).

Armed with backpack sprayers of products, Turcan applied each one as recommended in a designated parking stall in their parking lot. After each snowfall, he shoveled the stalls and recorded the results.

"We taught ourselves that the benefit of using brine as an anti-ice application allowed for easier cleanup to the surface, even after pedestrian and vehicle traffic," he says. "It resulted in much less deicer needed to achieve a safe surface."

Convinced brine could make a difference, Turcan presented his initial findings to the team. Production Director Nick Topf, ASM, Manager Josh Howver, ASM, and Senior Foreman Carlos Contreras accepted the challenge to spearhead the company's liquid operations program.

They took over the research and Continued on page 24

market.

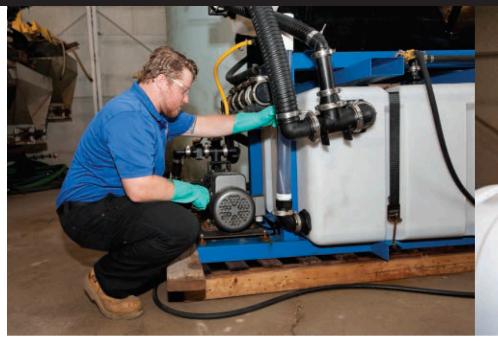
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began testing liquids in the field using a 250-gallon skid-mounted spray rig. They would anti-ice and record every detail: fill time, application time and results at different application rates and storm conditions. They would then regroup after the storm to see what was effective and where changes needed to be made.

"Our brine applications during that first winter were performed at no charge to our clients. We needed to understand the capabilities, the costs and the realistic expectations of implementing this service before we could estimate and believe in its effectiveness," Turcan says. "But we needed real-world applications to answer those questions."

Armed with the answers, the Cornerstone team was able to educate clients as to the benefits and cost savings that could be achieved through the use of liquids. In one instance, a



TAKING OWNERSHIP Manager Josh Howver, ASM, (left) and Senior Foreman Carlos Contreras (right) took early ownership of the brine program, including implementing in-house production.

client's contract didn't call for liquid use but because of the nature of the site — a narrow alleyway with steep embankments and extreme shade that made clearing snow difficult and ice likely — Turcan made the call to antice on the company's dime.

"We couldn't hit the estimated hours to service that site. We had to always go slow, and the skid steers would still fishtail across sheets of ice," he says. "We assumed the cost for anti-icing and we were able to provide a better result for the client





and a safer environment for the operators. We weren't wasting fuel and hours of plowing or sliding into garage doors. We made up for the cost of the anti-icing the second the operators started plowing."

Expanding operations

All of the company's preparation came in handy the following winter when

a major salt supply shortage hit their market. Their testing and investment in additional equipment proved invaluable.

"Clients shared with us that our competitors were sending alerts that due to the shortage they would be rationing salt applications or not salting at all," Turcan says. "For us, that would be unacceptable given

the liability exposure. Because of our liquids program we were able to continue serving our clients without sacrificing safety or quality."

The only hiccup was that Cornerstone had been purchasing its brine from an out-of-state supplier; but the frigid winter led to transportation breakdowns,

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Continued from page 25 which could have compromised operations. Out of that challenge, another Cornerstone process began — the development of in-house brine production.

This season Cornerstone will focus its efforts on its sidewalk program and hopes to completely convert to 100% brine applications on walks. It is exchanging its granular push spreaders for sprayers; using a proprietary 100% chloride-free deicer; and using more walk-behind brooms for follow-up service.

Turcan says the time is coming where

Learn about Cornerstone's process implementation. www.sima.org/library

What does it take to become a Chloride Conscious contractor? www.chlorideconscious.com



Cornerstone — which received SIMA's 2018 Environmental Leader of the Year Award for its salt use reduction efforts — will expand operations to larger sites, which will require investing in trucks and spray tanks with larger

carrying capacity. The company is auctioning off some of its V-box granular spreaders and has committed to making a truck/plow/liquid spray rig its standard snow and ice management tool going forward.

Words of advice

Turcan attributes the company's success with liquids to performing due diligence and not accepting claims of performance sight unseen. The use of liquids in private snow and ice management has been slow to take hold, and he attributes some of the reticence to unrealistic marketing hype.

"So many contractors were turned off by the concept because they were led to believe that if they spray their parking lots prior to the storm that the snow won't accumulate. It's no wonder so many contractors abandoned using brines and saying they don't work," he says.

Turcan encourages fellow contractors who are considering liquids or who tried them and gave up to try again, using their own research, and to be willing to embrace the fact that there are other, sometimes better, ways of doing things.

"Liquids can be an important



GYPSUM TREATMENTS REDUCE TURF DAMAGE

Liquid applications have helped Cornerstone limit turf damage from salt bounce and scatter. Another way the company is helping mitigate damage is to apply gypsum in the preseason. Sites have seen a noticeable drop in turf replacement costs. In one instance, a client that had previously paid \$4,000 for turf replacement opted for a \$900 gypsum treatment program that lowered replacement needs to \$1,800.

tool. It's wishful thinking that we will replace granular products 100%. There are times that liquids aren't going to work. But I believe the days of 'we've always done it like this' are long gone; and those who still

subscribe to it are doing themselves a severe disservice." **\$1**

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