SNOW START UP

ISSUE #2: FOCUS ON **OPERATIONS**

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GET SMART ABOUT SALT

Sodium chloride (aka rock salt) is a foundational piece of a snow company's ice management strategy. But its negative impact on the environment and infrastructure requires a smart approach to using it safely and judiciously to satisfy your customers, achieve the expected outcomes and manage costs and product waste.

1. **PURCHASING:** Smaller private contractors are a low priority in the salt procurement hierarchy. Establishing a material purchasing plan is key to making sure sufficient product is on hand before and during the season.

2. **SALES:** Sell service, not salt. Using salt as a profit center is not a best practice in the industry since it often leads to unnecessary applications (or over applications). This results in wasted materials, poor site optics and negative environmental impacts.

3. **PRODUCTS / APPLICATIONS:** Knowing when and how much salt to apply is necessary to achieve a successful level of service. As you become comfortable, adding alternative chlorides that can improve melting power and embracing the use of liquids will accelerate your success.

4. **DOCUMENTATION:** Collecting the right information can influence purchasing, service verification, operator retraining needs and slip and fall protection.

5. **STORAGE:** Given its environmental impact, proper storage is needed to prevent chloride runoff, which can leach into the groundwater and result in lost/compromised product.

SALES: FOCUS ON SERVICE, NOT PADDING PROFITS

You're in business to make money, right? As you build your business, stay clear of an easy temptation — to use salt as a profit center.

Charging for salt by the application or by the amount (e.g., bags, tons) incentivizes companies to use more salt than necessary since they pass those costs on to their customers. But you might not be making as much money as you think when you consider the impact on your equipment's life cycle; wasted materials, which increases purchasing costs; and damage to infrastructure, the environment and landscaping (some of which you may be responsible for fixing).

Clients that may not know better also incentivize overapplications:

LOS requirements. Level of service (LOS) and/or quality expectations from clients often drive contractors to over-rely on salt to deliver "wet" or "black pavement" conditions, particularly for clients with "zero tolerance" expectations.

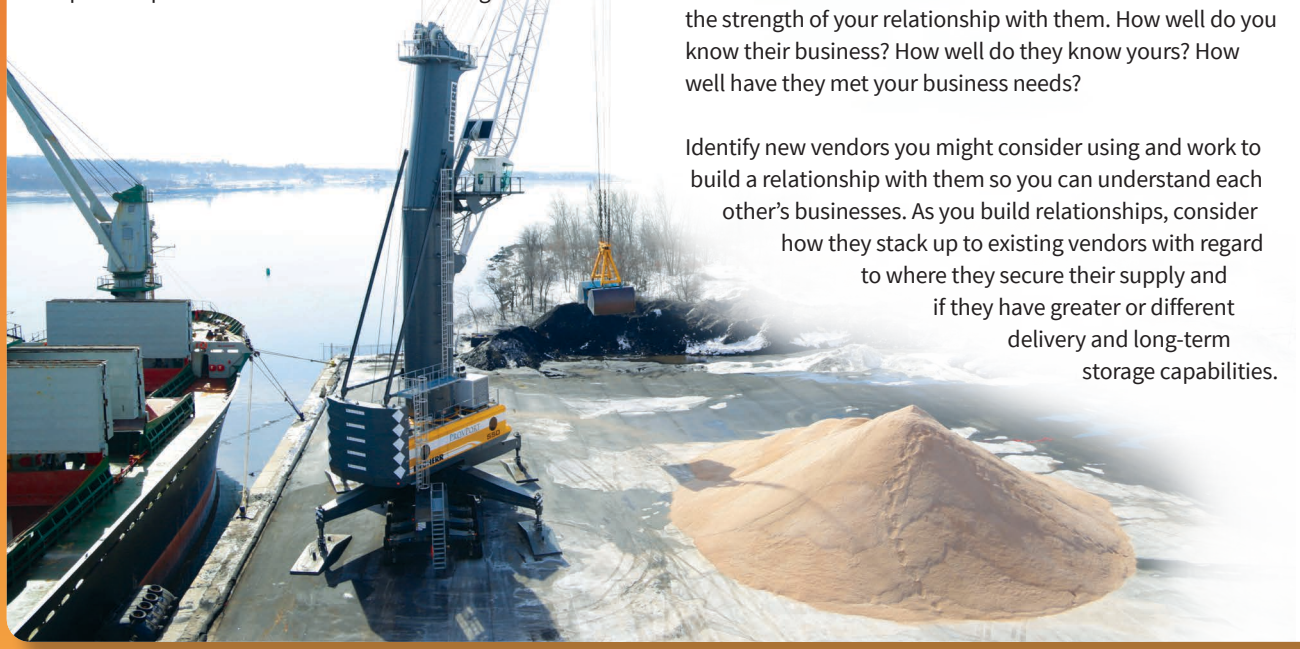
Slip and fall liability. False thinking that more salt means less liability also spurs overapplications. When you overapply salt, you actually reduce its effect and create a slip and fall opportunity — the very scenario you're trying to avoid.

An uneducated client (or even worse an uneducated snow contractor) may think more is better. Regardless of which party is driving over-application, the solution is greater education. As the owner of your business, it's important to be educated on the current methods available for ice control; proper use of salt; and new equipment and technologies that allow you to achieve superior results while using less product. It is also your responsibility to educate your client that sometimes less is more.

PROACTIVE PURCHASING PROTECTS SALT SUPPLY

Salt is the foundation of your ice management toolbox, so procurement planning is essential for you to be able to service your clients through the entire season. It's also not as readily available to smaller snow companies that don't have economies of scale to compete with the buying power of municipalities, state departments of transportation and even large snow companies.

The days of ordering from your closest salt supplier and replenishing on-demand when you run low are gone. You have to proactively anticipate your needs and have backup plans in place before the winter season begins.



Solidify your supply chain

Establishing good relationships with multiple suppliers is an established best practice. To get started:

1. Estimate how much salt you'll need and a targeted budget
2. Create a list of vendors you currently use and their current pricing
3. Build a list of new vendors to engage

Once you have this data, rank your current vendors based on the strength of your relationship with them. How well do you know their business? How well do they know yours? How well have they met your business needs?

Identify new vendors you might consider using and work to build a relationship with them so you can understand each other's businesses. As you build relationships, consider how they stack up to existing vendors with regard to where they secure their supply and if they have greater or different delivery and long-term storage capabilities.

GRADE YOUR SUPPLIERS

The volume of material you need and the capabilities of the vendors on your list will, to some degree, dictate who you can partner with. During the vetting and procurement process, consider these factors when choosing salt vendors:

- Amount of availability
- Timing of availability
- Delivery requirements
- Storage costs
- Delivery or trucking costs, or if you have to manage delivery logistics
- Payment terms and volume commitments
- Price

PROCUREMENT BEST PRACTICES

SIMA has established best practices for Sustainable Salt Use regarding purchasing:

- **Forecast needed inventory based on total estimated square footage/acres of service area, averaged with a minimum of five years of weather history (and salt use history if available).**
- **Keep a minimum of five average events worth of material on hand during the season.**

MATERIAL TRACKING PAYS OFF

Measuring and tracking ice control chemicals purchased and used during a season informs your decision-making related to operations, sales and expenses. Whether you use a basic spreadsheet or invest in technology to capture this data, measuring and managing your ice control chemicals has multiple benefits.

Production efficiency. Setting application rates and calibrating your equipment can prevent drivers from "going rogue" or guessing how much needs to be applied. Standardize the process to measure salt output by site, across the overall portfolio of sites, and per storm (per site). The goal is to identify potential material waste by benchmarking actual usage vs. inventory, and comparing application rates across operators and equipment types.

Storm management. Reduced consumption increases salt truck load range, which improves routing, reduces drive time for reloading and increases service consistency. Improved material management and awareness will reduce mistakes and the possibility of running out of material at critical times.

Cost control. Reduce costs by using what is necessary, avoiding waste and reducing overall material consumption, which reduces inventory and related carrying costs.

Inventory management. Determine how much product is necessary to service your client base for the season so you can accurately order in the preseason and manage in-season inventory levels.

Client expectations. With increased attention to detail, you are more likely to meet or exceed client expectations due to consistent and improved performance by avoiding under- or over-application.

Legal defense. Tracking material use at the client level provides useful information to dispute slip-fall claims.

- **Establish purchase agreements with multiple suppliers to optimize control of supply and quality and to mitigate risk due to fluctuations in supply availability and cost.**
- **Contract or purchase 50% to 75% of estimated deicing material inventory (solids and brines) by the end of summer.**

RESOURCE: SIMA's Sustainable Salt Use Best Practices offer guidance on purchasing, storage and transport, operations and more. Download it at **sima.org/best-practices**.

Visit www.sima.org/startup for all Snow Start Up resources.

ESTABLISH BEST PRACTICES TO MINIMIZE SALT USE

Observing sustainable salt use best practices improves efficiencies, improves service and saves money. Here are some tips to guide you:

1. Before deicing with a salt application, use mechanical removal to achieve as clean a scrape as possible to reduce the application needed.

2. Prioritize anti-icing. Applying liquids in advance of a storm can reduce the amount of salt used and achieve longer residual than granular salt material, which can be displaced by wind, traffic, and bounce and scatter.

3. Owners / managers should establish standard application rates as well as rates for special circumstances (e.g., long-duration events, spot treatments, etc.) for operators to follow.

4. Know the limits of the material you're applying. Rock salt is only effective to 15°F. If you're spreading salt when it's colder, you're wasting material, time and money.

5. Optimize salt use with techniques such as blending and pretreating, to accelerate the melting process or extend the usefulness of the application to lower temperatures.

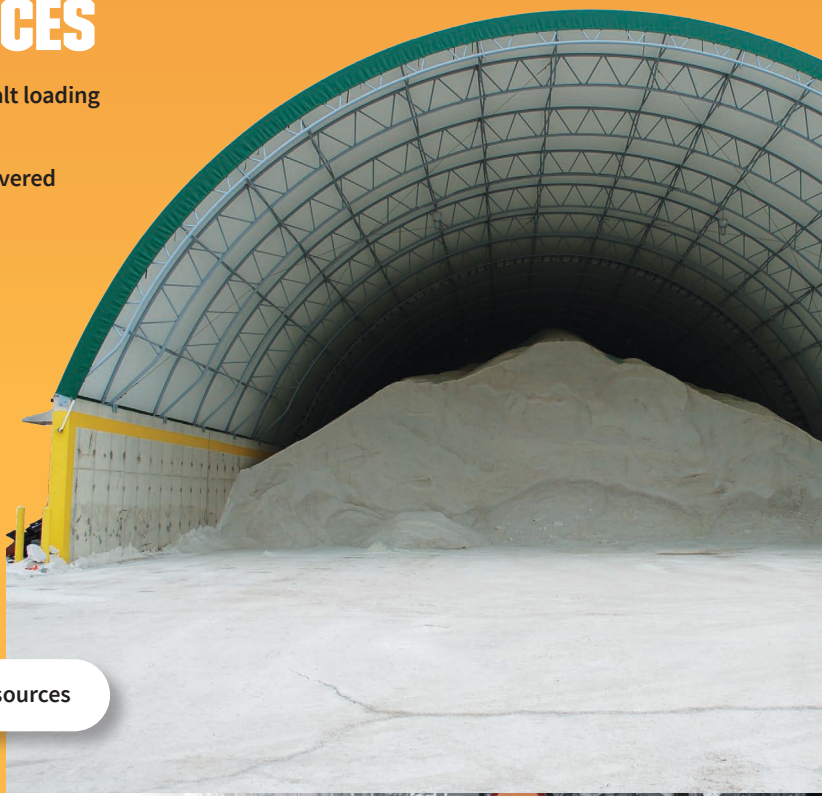
STORAGE BEST PRACTICES

1. **Consult your municipality and state or province for salt loading and storage regulations.**

2. **Whenever possible, store salt piles in a permanent covered structure, such as a storage shed or building. If that isn't possible, cover the salt with an anchored tarp made of impervious material to prevent wind and other weather events from uncovering the piles.**

3. **All salt storage, loading and transfer areas should be on an impermeable surface such as concrete or asphalt to avoid chlorides leaching into the groundwater aquifers.**

4. **Storm water should drain away from the salt pile to prevent water from entering the storage area. Properly contain drainage using curbing or sandbags, if necessary, to prevent concentrated runoff into storm drains.**



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