



Prepping for the powder: how to prepare for any snow event

Editor's note: This article was prepared by Alyssa Kram of IRONCLAD Marketing, West Fargo, ND on behalf of Arctic Snow & Ice Control Inc., Frankfort, IL.

» **SNOW EVENTS** don't operate on a 9 to 5 schedule. Implement a chain-of-command plan to ensure all events are handled as quickly as possible, even in the middle of the night. Photo courtesy of Randy Strait.

RECORD-SETTING SNOW-FALL coupled with strong winds socked cities across the United States last winter. For some areas it's the norm, but for many the snow has been an unwelcomed surprise. And in most parts of the country, people equipped to rid their region of that snow remain in high demand. For safety and sanity, it's critical to get snow and ice off of traveled areas quickly and thoroughly—of course, that's easier said than done. A haphazard approach or partially completed job will create more problems than it solves in the long run, making it imperative for you to be thoroughly prepared.

After 36 years in the snow-removal business, Randy Strait could easily be considered an expert

on getting rid of the white stuff. He owns Arctic Snow & Ice Control Inc. and has tackled everything from his own driveway to parking lots at some of the nation's largest businesses. And he stresses the key to quality work and reduced liability is to be prepared for each and every snow removal job.

No matter the size of the job, Strait says "it's better to be safe than sorry when it comes to preparing for snow removal." Although there are many issues that need to be addressed beforehand, such as the size of the lot and the state of the equipment, taking a little time to do so will ensure any event is handled quickly and effectively. This is especially true, Strait says, since, "the climate is changing and the times are changing, and you never know what Mother Nature may bring."

"Snow and ice removal is a compromise for my passion to manage sports turf."

-Mark Frever, CSFM, director of grounds, Albion College, Albion, MI.

By learning to expect the unexpected, snow contractors will be poised to handle any winter weather scenario. And knowing how and for what to prepare when a snow event hits is critical to success. Strait recommends you answer a few questions beforehand to gauge your preparedness.

PROPERTY POINTS

Although all parking lots may seem the same to the average person, snow removal contractors know each is vastly different. In order to clear each unique property well, snow contractors must consider several factors before ever arriving onsite. The first aspect is the property's size.

Imagine a building contractor preparing for a new home construction job. When drawing up blueprints, he or she must know the dimensions of the empty lot. This will help determine the size of house that can fit on the property, how large of a crew is needed, the quantity of supplies that will be required, and how long it will take to complete the project. In the same way, a snow removal contractor won't be prepared to plow without first

knowing the size of the property being cleared.

The property size will dictate the type of equipment necessary, and the number of machines and personnel required to expediently handle the situation. However, when attempting to estimate equipment needs, Strait stresses the importance of using machines and plows currently owned.

"You should always estimate based on the plows and equipment you currently have," he explains. This touches on Strait's next point: knowing the property's size can help prevent overstocking, and reduce the likelihood of time and money wasted on excess machines and staff. It will also avoid bringing equipment that may be too large for the job.

"Everyone always wants to push more snow, faster. Efficiency drives the majority of our decisions," Strait says. But he stresses that the largest plow may not always be the best for the job. For example, a snow contractor with a large 19-foot loader-mounted snow pusher may want to opt instead for his 10-foot skid-steer snow pusher to properly handle a

Four tips to keep your spreaders running

WHEN WINTER STARTS UP, the last thing you want is for your spreader to stop working. Fortunately, a routine maintenance program is simple. Some units may require more care than others, but, in general, there are four simple, yet important, rules to follow.

1 WASH DAILY

Washing the spreader is the most frequent maintenance requirement, since corrosion is the number one enemy of snow and ice professionals. In fact, a spreader should be washed after every use in order to prevent corrosion from eventually forming. This task is most crucial when dealing with steel hoppers, which are highly prone to rust, but it's also good practice with polyethylene hoppers. It's a good idea to wash out old salt and sand, as well as foreign materials.

2 USE PLENTY OF GREASE

Next on the list is to regularly grease all moving parts, such as bearings, chains, conveyors, rollers and augers. Of course, this requirement varies based on the type of spreader being maintained. For any electric-powered spreaders or those with electrical connections for components, such as lights, all terminals should be coated with dielectric grease. This helps prevent corrosion and ensures easy reconnection. For best results, apply dielectric grease to the terminals anytime they are disconnected.

3 TIGHTEN THE BELT

With any spreader that uses belts, chains or conveyors, the tension should be properly adjusted throughout the winter to reduce slippage and performance problems. The owner's manual will provide specific information, but some points are universal. First of all, be careful not to over tighten the drive belt or chain, as this could lead to damage. Furthermore, before adjusting conveyor belt tension, make sure that deicing material or sand is not trapped or frozen between the conveyor belt and the surface below.

If the spreader doesn't have a conveyor belt, it likely uses an auger to deliver material to the spinner.

4 CHECK THE ENGINE AND HYDRAULICS

Maintenance for electric-powered spreaders ends here. But for gas-powered units, one must also follow the maintenance schedule outlined in the engine owner's manual to check or replace the oil, air filter, spark plugs and more.

If the spreader is powered by a hydraulic system, change the hydraulic fluid periodically. Replace any hoses or fittings that are damaged or leaking, and be sure to cap all hydraulic connectors to prevent system contamination. —James Truan, vice president of sales & marketing, SnowEx. ■



>> EVEN THE SMALLEST PRACTICES will have a big impact when it's time to handle a snow event quickly. Rich Johnston, a snow contractor from Westville, IN, stands with his fleet, faced out and ready to go at all times. Photo courtesy of Johnston Landscape and Maintenance.

mid-size parking lot. A 10-foot snow pusher will be ideal for clearing narrower aisles, handicapped parking spaces, and will even work in the case of plowing during the day, when traffic is present.

Finally, an accurate estimate of how long the job will take can be determined. Many contractors that use containment plows use a formula based on acres and pushing capacity of these types of plows. For example, one 10-foot containment plow with a pushing capacity of 13-yards will take roughly 30 minutes to plow anywhere from two to three acres; of course, this will be dependent on several outside variables that will change from event to event. A snow event with a 4-inch accumulation of heavy, wet snow will take longer to clear than an event dropping two inches of light, fluffy snow. A contractor using, for example, a 16-foot model with a 28-yard capacity can estimate the same job in the same weather conditions to take about half the time.

But running an efficient snow removal operation involves more than just sending out the crew and instructing everyone to start plowing. Having a plan in place for how to clear the lot is crucial for maximized efficiency, especially in the case of larger properties. For example, it may be wise to divide the area into sections and assign each operator his or her own area. This gives each individual a specific portion on which to focus efforts, leading to more efficient plowing and eliminating the possibility of doubling-up on a single area.

Parking lots pose additional challenges you must be aware to ensure quick and thorough plowing. Parking lots often include obstacles such as light poles, medians, etc. Noting and planning for these small details will make a big difference, in providing top-notch service and preventing accidents.

You also need to factor in appropriate equipment and personnel for curbs and sidewalks, which require additional time and resources.

This level of adequate preparation is key, as every minute in snowfall response time can be crucial. But rather than take the time to plan for fast, complete snow removal, many contractors rely heavily on salt as a primary tool. Salt has advantages, but also comes with its fair share of disadvantages, all of which you must be aware.

THE RIGHT PLOW

There's no doubt salt can be beneficial in some situations, but recent shortages have affected many of us. In addition to shortages and of course, the high cost of salt, the narrow window of its effectiveness is another factor to consider.

"Salt is most effective when the temperature reaches 20 degrees Fahrenheit and above, and the sun is out to activate it," Strait says. Experience shows that these types of ideal days are few and far between. The best bet is to remove the snow and ice as completely as possible to reduce or fully eliminate the need for salt, and prevent

>> KNOW THE DETAILS of each property in advance to ensure the proper equipment is used. Though it may seem like the obvious choice to always use the largest snow pusher, a smaller one will be best for small entranceways and tight corners. Photo courtesy of Randy Strait.



slip-and-fall hazards as well. In order for you to successfully achieve clean, clear results, a good snowplow is an essential part of the snow removal team.

A snowplow is more than just a piece of equipment, it's the real workhorse of a snow removal operation. The better the plow, the better the snow removal job will be, leading to less chance of excess ice build-up. For example, containment-style plows, also known as box plows, have come a long way over the years, and many different styles and models exist, each with their own technology and features. Looking for a plow that incorporates features designed for fast, efficient removal of snow and ice will be key in effective operation and preventing liability issues.

Many snowplows incorporate steel cutting edges, which are very effective at scraping even hard-packed snow and ice down to the pavement. Some manufacturers offer sectional moldboard designs, which contour to variances in the pavement grade, allowing the plow to get into dips and depressions in the pavement. This allows for cleaner results, and more snow and ice to be removed with each pass. Recently, special drop-and-go hitch designs have been introduced to further enhance the amount of snow and ice removed with each pass. These hitches let the plow move freely from the equipment and automatically adjust the plow to any change in pavement.

Beyond boosting the effectiveness of a snowplowing operation, the equipment can affect your ability to respond to and handle each snow event quickly and efficiently. To ensure the equipment doesn't slow down the crew, it's imperative to keep inventory well maintained and serviced.

KEEP EQUIPMENT IN CHECK

In nearly every area of the country, a snow event will show up unannounced at some point. It's not uncommon for the weather to go from 60 degrees Fahrenheit one day to blustery, blizzard-like conditions the next. It is crucial to keep all machines adequately maintained so they're ready to tackle any job and last throughout several hours of tough plowing.

The first step in any proper routine maintenance plan is the most basic—keep the snowplow clean. Taking just a few moments at the end of each shift to quickly clean the plow will provide a two-fold benefit. First, a good cleaning will remove any excess ice or salt that could damage the plow or cause corrosion. Second, it will allow the operator to spot any obvious issues, such as damaged or severely worn parts. Replace these immediately to avoid a decrease in performance or a full-scale breakdown in the middle of a plowing job.

Good maintenance is an ongoing process, and should receive adequate attention, both during the season as well as the off-season. Investing a small amount of time into basic plow upkeep will pay dividends, as the plow will be ready and waiting to go as soon as the flakes begin to fly.

It's beneficial for a snow removal fleet to include more equipment and machines than needed at any given time. In the event a plow becomes damaged during use, having an extra one on hand to



» USING A PLOW that incorporates features designed for fast, efficient removal of snow and ice will reduce the need to use salt, which is less effective in cloudy, colder conditions. Photo courtesy of Randy Strait.

replace the damaged one immediately will eliminate costly downtime. Rather than leaving a machine idle while its plow is being fixed, it can be fitted with a backup unit and be right back out on the jobsite.

READY WHEN YOU ARE

All snow events must be handled with urgency, as every minute counts. When it comes to the argument of whether to wait for the snowfall to stop before plowing, or get out there an attack the white stuff while it's still coming down, Strait's philosophy is simple: "Don't hesitate for a minute. As soon as the snow begins to fall, we're out there immediately."

When faced with an impending winter storm or blizzard, Strait urges how crucial it is for the operator to respond quickly so the snow doesn't get too far ahead. The longer it takes a crew to respond, the more time snow has to accumulate and ice to build up and the more likely it will be to cause a detrimental slip-and-fall accident.

The first impediment to a quick response time is obvious: bad weather. A snow event will make travel conditions to the jobsite less-than-ideal, so the closer personnel and equipment can be to the jobsite, the faster they can respond.

Finally, even the simplest policy can save time. Consider backing equipment on the lot, facing the exit, so it's ready to go in an emergency. This will shave off crucial minutes in the event of an urgent snow situation, leaving less time for snow accumulation and less chance of a slip-and-fall accident.

Although responding to a snow event immediately seems like the obvious way to handle a storm, it's easier said than done. Knowing how to prepare, and for what to prepare will ensure every snow event is handled quickly and efficiently. ■