

Removing snow from synthetic and natural turf fields



AS SPORTS TURF MANAGERS there are many challenges we face and many of these are weather related. While working in the Northeast, my biggest challenge was dealing with winter conditions, in football season or in early spring with field hockey or baseball.

I have found through trial and error a number of ways to deal with snow on both synthetic and natural grass fields; the most important strategy was to have a plan of attack ahead of time, before Old Man Winter throws multiple inches of snow or ice at you. If you are not prepared the result will be a lot of lost valuable time in the removing of this frozen precipitation. Establish what the plan of action will be in advance and be sure to factor in “the worst case scenario” while also having a Plan B.

PLOWING OPTIONS

Here are a couple of plowing options that can be used to successfully remove snow on either synthetic or natural grass:

If a rain tarp is available, tarping the surface before the event allows you to remove the snow/ice AS SOON AS IT BEGINS TO FALL. Using high-powered, PTO-driven blowers allows you to prevent as much accumulation on the tarp as possible; this requires being on site as soon as the snow or freezing rain begins to fall, and proactively removing the precipitation, working from the center of the field and working your way out to the sidelines.

The snow has to be a dry snow for blowers to work. If it’s a wet snow you can remove the snow by using rubber tip snow plows, or other snow plow options listed below. Do not allow the snow to **accumulate more than 1 inch before beginning the removal**. Also, plowing off the



- >> **1. SNOW REMOVAL** on rain tarp with a drain pipe bucket plow and turbine blower.
- >> **2. PLOWING SNOW** with retro-fitted bucket with guard. >> **3. RETRO PLOW BLADE** on utility vehicle. >> **4. RETRO FITTED** bucket on tractor. >> **5. SCREEN DRAG** on dusting of snow.
- >> **6. SNOW BLOWING** a natural grass field. >> **7. GREEN DYE** sprayed on snow to accelerate melt.

CAUTION: When plowing off of the rain tarp, plow in the direction in which the tarp was laid, and modifying the plow blade to prevent snagging and tearing the rain tarp.

rain tarp makes for a cleaner surface in the end.

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Plowing an uncovered surface with a pickup trucks or utility work vehicles works fine, but you must **retrofit the plow blades**. Here are some ideas:

Use pressure treated wood/recycled lumber. Hardware needed: long lag bolts, washers, and nuts and one 2 x 4 x 8-inch or 4 x 6 x 8-inch piece of lumber. I remove the snow shoes from the plow (will still be used as the receiver for the pressure treated wood). Take the lumber or whatever you find that will keep the blade from coming in contact with the surface.

On the bottom side of the lumber recess drill two holes (large enough for the lag bolt head with a washer) in alignment with the plow shoe receivers; the recessed drill hole should be deep enough to allow for a lag bolt head to sit flush with the bottom of the board. Place a support washer at the head of the bolt for reinforcement. Run the lag bolt up thru the board and thru the snow shoe



>> **PLOWING** and snow blowing off rain tarp.

ring on the back of the plow. Add washers above and below the lag bolt as you would with the snow shoe for spacers and secure bolt with a locking nut.

Another idea is using a Drain Pipe bucket plow. You need a 15-20-foot by 18-inch diameter drain pipe, ratchet straps, and a tractor with bucket. Strapping the drainage pipe to the bucket increases the plowing swath; when you plow have the lift bucket up, tilt bucket forward, lower to turf and plow.

SYNTHETIC FIELDS

When plowing synthetic fields you don't need to scrape the surface clean. If you try it will result in the removal of

crumb rubber and the chance of turf damage. Instead, drop the plow to the surface and then raise it slightly (1/8 to 1/4 inch). Leaving this small amount of snow is what you want to achieve. Synthetic turf heats up so fast that even 1-2 inches of snow will rapidly melt off if there are slightly exposed areas of green turf.

After the majority of snow has been removed, black crumb rubber (synthetic field) or black sand (natural grass) can be spread over the field. Allow this to sit 20-30 minutes and then run a field groomer over this last bit of snow and it will quickly dissolve. I have also seen green dye sprayed over the last 1 inch of snow that will absorb more sunlight and accelerates the melt.

If only 1-2 inches of snow has fallen on synthetic turf, I have been able to just drive a utility vehicle in a crisscross pattern across the field (like a mowing pattern) to achieve melting; by compressing this little bit of snow in the tire tracks it accelerates the melting.

Snow blowers also work well. But remember to **NOT SCRAPE IT CLEAN**. Leave a 1/4 inch of snow, followed by an application of crumb rubber or black sand.

Don't be too concerned with plowing against the seams of the synthetic turf. As long as you're not scraping it clean and take your time, it will be fine. If you try to cowboy plow the removal of the snow and the plow begins to bounce it could result in extreme turf damage.

If a large amount of snow is called for, get after it as soon as there is an inch of accumulation and keep repeating the removal process throughout the storm.

When the field is scheduled to be used in early spring (March/April), I recommend you remove the snow after each storm event throughout the winter. Removing all but 1 inch will prevent a lot of heartache come March. It's much easier to remove 1 inch of snow in the spring than to remove 3 feet of frozen, hard-packed snow. ■

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