

# “WHEN THE WEATHER OUTSIDE IS FRIGHTFUL . . . LET IT SNOW”

**I'm working with** my first sand-based football field and have been told that I need to tarp it to prevent dehydration. Are there cultural practices that will eliminate the need to cover the field? If not, what are my indicators for covering and removing? Do I monitor ground temp, air temp, wind speed, moisture content or all of the above? If we get a few warm days in the early spring do I need to open the cover?

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**S**ince you have a sand-based field be sure that you have adequate levels of all nutrients in the soil and plant. Potassium is easily leached and it is important for winter tolerance so be sure it is not limiting. Fall applied potassium should be part of your routine winterization program. Just before you winterize your irrigation system be sure to give the field one last heavy watering. I generally don't like to raise and lower the mowing height throughout the growing season. However, if you are on sand and will not use a field cover then it is best to let the grass grow up an extra 1/2 inch so that it may trap more moisture and reduce drying during the winter. In the spring the grass will be matted down from the winter or the brown canopy can be mowed off at your normal mowing height.

Winter turf covers are a wonderful tool for athletic field managers. There are three general types of winter protection covers: 1) open woven polyethylene or polypropylene; 2) non-woven or spun bound polypropylene; and 3) impermeable materials made from polyethylene film. All of the winter protection covers help moderate temperature and reduce moisture loss. You should anticipate extended frost protection and seedling establishment when used in the fall and earlier green up and growth in the spring.

As far as winter injury goes these products have the greatest benefit by reducing winter desiccation during open, dry, and windy winters. These conditions on frozen soil or droughty sand can cause turf loss to athletic fields. Kentucky bluegrass is seldom killed by direct low temperature while perennial ryegrass and tall fescue are more susceptible to low temperature injury in northern climates. Even though winter covers moderate temperature it is likely that frozen ground will occur under winter protection covers in Iowa.

Since you have already purchased a translucent woven polyethylene cover, here is how to use it and what you might expect: If you are trying to extend the growing season during the fall play, you will need to cover when frost is likely and uncover during events. This is more work but you can get an extra month of growing time and more importantly get some extra seed established. Avoid lush growth under the tarp going into the winter by removing the cover for 2 weeks in November so the grass acclimates for the winter.

Another hidden advantage of the winter cover comes by way of limiting traffic via a nice way of saying "Closed for the winter—keep off."

My cue for winter covering may sound a little unscientific but it works. Watch the weather for the first big snow or significant temperature drop that will cause the ground to freeze. If the ground freezes you won't be able to secure the tarp with

pins in the ground. Waiting until the ground freezes also insures that the turf has had time to winter acclimate. If snow is imminent then apply your favorite snow mold fungicide and then place the tarp as the final step in putting the field to bed. In some years with additional snow cover I have experienced significant seed establishment when the covers were removed in the spring. If you miss the snow mold treatment before placing the cover then you can treat over top of the open woven covers and get some disease control.

My cue for uncovering the field is like peaking in the oven to see if the biscuits are ready. If the grass starts to grow then it is time to get the cover off of the field. The grass will first green up and then shoots will start to elongate. Get it off before the grass needs mowing. If you want to leave the cover on longer or have had trouble with a flush of growth in the spring then borrow a trick from golf supers and apply a light rate of Primo PGR just before covering the field in the late fall/early winter. This allows you to pull the tarp off later without a flush of growth occurring.

In Canada and some extreme northern parts of the US ice encasement has caused turf loss on putting greens. I would not anticipate wide scale loss of athletic field turf as the result of ice encasement because most fields have some type of surface drainage. I have seen localized loss of turf in fields that have standing water in surface depressions. Annual bluegrass is a common, and undesirable, component of northern athletic field turf. Annual bluegrass is very susceptible to winter desiccation and ice encasement injury.

The covers discussed here have many winter protection benefits for grass, but you may experience more encroachment of annual bluegrass since covers also protect this problem weed.

Natural snow cover provides a very effective winter blanket that prevents winter desiccation but also increases the chance of snow mold injury. If you are not very good at predicting winter conditions then winter covers may be your best choice to prevent winter injury and extend the turf growth and recovery season of sport fields. Those of you on limited budgets may choose to purchase only enough covers to advance growth in critical areas such as between the hash marks on football fields and in the goalmouths of soccer fields. Be sure to mark your pins, stakes, or staples used to secure the cover. They are easy to leave on the field and present an obvious hazard for players and mowers.

I know there are a lot of you out there that can't afford one of these nice covers yet so you may want to consider using the "poor mans turf blanket." Apply a heavy topdressing of compost or sand; something between a 1/4 and 3/8 of an inch will do just fine. The topdressing will help retain moisture around the plant and reduce winter desiccation injury. And for the time efficient lazy man, it's also a protective cover you don't have to pin down or pick up in the spring.

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