



UNITED STATES GOLF ASSOCIATION GREEN SECTION

Mid-Continent Turfletter

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ICE COVER ON GREENS

Ice cover has developed into a serious consideration again this year in many areas of the Midwest. It would appear that conditions are quite similar to those experienced three years ago. We have found that if precautions are taken, damage resulting from an extended ice cover will be relieved or avoided.

In most cases turf damage is most severe on greens which do not drain or which hold water even after the ice cover has melted. Other areas on the course which also will show damage are any low water-holding, poorly drained locations. Obviously, the most positive correction of such conditions is the provision of drainage. However, the immediate problem is what to do about greens which do not drain and are presently covered with ice. Damage results from two conditions: elimination of necessary oxygen to the rhizosphere, and the activity of parasitic fungi.

Break up and melt the ice

Punch holes through the ice cover and into the soil, at least 3 inches, if possible. Use a 1/2 inch diameter or larger sharpened steel bar; make holes from 1 to 3 feet apart. Little permanent damage will be done to the putting surface. Keep these holes open in the event they are re-iced.

If the ice cover remains too long melting can be hastened by the application of fertilizer. A soluble inorganic fertilizer such as ammonium sulfate may be used. Do not apply in quantities larger than 3 pounds per 1000 square feet. Even then, possible burning of turf is a factor. A natural organic fertilizer product is preferable. Its dark color is heat absorbing and melting is encouraged. Rates of 10 to 20 pounds per 1000 square feet can be used without burning. On the other hand, ammonium sulfate causes melting by depressing the freezing point.

If fertilizer is applied and another sheet of ice forms, damage resulting from fungus activity can be greatly increased. Therefore, it is wise to follow this procedure only when there is good assurance that another permanent ice cover will not form.

Remove the water

After ice has permanently melted and warm weather is forecast, drain or dry the area in any way possible. In severe cases, ditches have been actually dug through the side of a green if this is necessary to surface drain the area. Such areas are later refilled and sodded. Some men have used squeegees, shovels, etc., to push water from low-lying or cupped surfaces. Others know locations of existing tiles and punch rods through the soil to the tile, thus insuring drainage. Such drain holes must be kept open. Any method which is successful in removing surface water can be used. In severe cases where permanent damage to turf cannot be avoided, aerate the green as soon as the area is sufficiently dry. Sow either Seaside or Penncross bentgrass at a rate of 2 pounds per 1000 square feet, before vertical mowing and drag matting.

Protect against diseases

One of the most important considerations in the entire picture is adequate protection against the ravages of fungi. Various species of Fusarium (and later in the spring Helminthosporium) seem to be the most deadly. As soon as a spray machine can be operated on the course, all greens must be treated. This is regardless of any fungicide applications made earlier in the season or the preceding fall. It has been our experience that a mixture of PMA and Kromad offers the most positive control of the fungi which are active at this time. Rates are: Kromad at 3 to 4 ounces per 1000 square feet; PMA at 1/4 to 1/2 ounce per 1000 square feet. Make two applications 3 days apart if damage is visibly pronounced (a reddish cast to the turf). Keep a close check on diseased areas and treat every 4 or 5 days if necessary and until the situation has improved.

Don't build troubles in

Many greens are currently being redesigned and rebuilt in the Midwest. The primary reason for doing so is that older greens (and maddingly enough -- many of the newer constructed greens) do not have adequate surface and sub-surface drainage. Ice cover can be a problem even on well drained greens if the cover lasts sufficiently long. However, it is much more severe on poorly drained greens because once the ice melts, standing water is even more of a problem.

GREEN SECTION MEETINGS

A series of three educational meetings will be held by the Green Section during the week of March 12. The meetings will be in Washington, D. C. on March 12; Chicago on March 14; and in San Francisco on March 16. All meetings will start at 2 p.m. and will last until 10 p.m., with a two hour break for dinner. All USGA clubs are invited to send two representatives to these meetings.

Write to any of the Green Section offices if you wish additional details about the meeting nearest you.

BE READY FOR SPRING, BUT DON'T "JUMP THE GUN"

It is becoming increasingly more evident that bentgrass is at least a pseudo warm season grass. In any event, bentgrass does not "green-up" and become vigorous until the temperature has remained above 60 for a period of time. Dormancy is not broken completely during the advent of the first few days of "growing weather."

Serious damage has resulted especially during the past two spring seasons, where bentgrass greens have been worked prior to continued warm weather and before dormancy is completely broken.

We have observed that complete kill has resulted where cold freezing weather has followed a program of fertilization with a soluble inorganic product, vigorous vertical mowing, aeration and cutting.

Just what is gained by working greens, thus encouraging turf to initiate a lush growth before the season for continued growth has arrived? Greens definitely should be left alone and not disturbed until there is assurance that freezing weather is no longer a factor.

CONFERENCES

- February 21-22-23.....Minnesota Golf Course Superintendents
Turf Conference - Normandy Hotel
Minneapolis, Minn.
- February 26-27.....Southern Turfgrass Conference
Peabody Hotel
Memphis, Tenn.
- March 5-6-7.....Midwest Regional Turfgrass Conference
Memorial Center, Purdue University
Lafayette, Indiana
- March 13-14-15.....Iowa Turfgrass Conference
Memorial Union Building
Iowa State University
Ames, Iowa
- March 19-20.....South Plains College
Second Annual Turfgrass Short Course
Levelland, Texas
- March 22-23.....Michigan Turfgrass Conference
Michigan State University
East Lansing, Mich.
- March 26-27.....Wisconsin Turfgrass Conference
University of Wisconsin
Madison, Wisconsin

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