

Protection from Winterkill

In the first article, which appeared in August GOLFDOM (page 66) some of the causes of Winterkill were outlined, particularly for the benefit of far Northern clubs that are beset with alternate freezing and thawing conditions that play havoc with greens. The second part of this article offers suggestions for coping with these conditions.

By JAMES R. WATSON

There are no techniques that will absolutely assure complete protection from winterkill. The following suggestions may materially reduce the severity of damage and if combined with a sound management program, will insure a more rapid recovery of damaged areas.

The management program must include proper fertilization, aeration, correct mowing techniques, including periodic vertical mowing, judicious use of water and sound programs of disease and insect control.

Desiccation

1. Obtain and hold as much snow cover as possible. This may be accomplished by the use of snowfence or by piling brush on the greens. It is important to recognize that this may intensify snowmold attacks; hence, preventive treatment for this disease (outlined later) is imperative.

2. If possible, plant trees or shrubs to act as wind breaks on more exposed areas. This will reduce wind velocity and help prevent snow cover from being blown away.

3. Apply water (syringe) in late winter or early spring when climatic conditions conducive to desiccation prevail. Generally this is not practical because water lines are still open, the ground frozen and irrigation systems are not operable; nevertheless, this one step will probably do more to prevent desiccation than any other one factor. Often the expense and inconvenience of hauling water to the more exposed greens can be justified by offsetting the expense and inconvenience of restoring them when the season opens. Large (100-200 gallon)

truck or trailer drawn sprayers are excellent for this purpose and such usage, coupled with summer spraying needs, justifies the cost of such equipment.

4. Spraying the greens with a plastic material such as "Wilt-Proof" may help reduce transpiration; hence, prevent desiccation. These materials are being used by nurserymen to successfully reduce transpiration of trees and shrubs when transplanting under adverse conditions. Coating the leaves of the grass after the last cutting in the fall, or perhaps spraying in late winter — early spring, may help. Actually this is an untried idea and the writer does not know whether such a scheme will work or not. It seems plausible and perhaps should be investigated. Studies on this subject will be set up at the Toro R. & D. Center this winter.

Thatch and Mat

1. Eliminate and control thatch insofar as is possible. Vertical mowing, aerating, adequate fertility and possibly lime (even though soil tests may show an adequate supply the thatch layer itself may be quite acid) all are accepted practices known to control and reduce thatch and mat.

2. Fairways should be "cross-cut" periodically during the growing season. If severe drag mat will lift the runners and stems and permit removal by mowing.

3. Fall fertilization — four to six weeks before the first killing frost — coupled with aeration and spiking, will aid materially in decomposing the thatch and also will help promote deeper root growth. Fall fertilization insures adequate reserve food storage which is responsible for early spring growth. Healthy vigorous plants are better able to withstand adversity in late winter-early spring.

4. Use soluble or inorganic sources of nitrogen during cool spring weather when the breakdown of organics may be too slow to further encourage growth. Fall fertilization with organics or with half-organic complete fertilizers will eliminate the necessity for early spring fertilization.

5. Topdressing of greens will aid materially in decomposing thatch accumulations. In the opinion of the writer, reduction and elimination of this practice has been responsible for the increase in thatch and mat accumulations over these past several years. Periodic topdressing should help in reducing winterkill through its indirect affects.

Snowmold

1. Preventive treatments of the appropriate
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**CLEARY
PRODUCTS**
for
**BETTER
TURF**

✓ **PMAS**

for Crabgrass and Turf Diseases

✓ **spotrete**

75% Dry Thiram Fungicide

✓ **Caddy**

Liquid Cadmium for Turf Diseases

✓ **METHAR**

Disodium Methylarsonate for Crabgrass
in both liquid and powder

✓ **C531** FUNGICIDE

Cadmium zinc copper calcium chromate

✓ **PM2,4-D**

Phenyl mercury 2,4-d dichlorophenoxy-
acetate for selective weed control

✓ **ALL-WET**

makes water "wetter" for better pene-
tration in all turf areas, especially
thatched or compacted spots

W. A. CLEARY CORP.
NEW BRUNSWICK, N. J.

✓ a merchandise display in the lockerrooms
✓ early this summer, he figured that busi-
✓ nesses was suffering because of his remote
✓ location. Many members were launching
✓ their rounds without first visiting the pro
✓ shop and Steve's conclusion was that too
✓ many of them were buying balls, sports-
✓ wear and equipment off the premises be-
✓ cause he couldn't get them exposed to
✓ his merchandise. But the lockerroom dis-
✓ plays reminded everybody that he was in
✓ business down at the north end of the
✓ course and no sooner had they been set up
✓ than sales began to spurt.

It's merchandising schemes such as this,
plus ingenuity in scrounging around for
materials and putting them to work for
him, that is making Steve Blatnak's opera-
tion at Ridgemoor a real profitable one.

Winterkill Protection

(Continued from page 33)

ate fungicide in combination with pro-
cessed sewage sludge has proven a satis-
factory control for this disease. Treatments
are made in late fall-early winter, prefer-
ably after growth activity has ceased, the
ground frozen and before snowfall which
remains. Mid to late November or early
December appears to be the best time for
application.

2. Keep an adequate supply of fungicide
on hand to treat greens should snowmold
develop in early spring.

Heaving

A light rolling to press heaved plants
back in contact with the soil will reduce
damage. Heavy rolling, particularly when
the soil is wet, may do more damage than
that caused by freezing and thawing.

Winterkill is responsible for the loss of
considerable turfgrass each year in North-
ern U. S. and Canada. Desiccation, thatch
and mat, snowmold and heaving operating
alone and in combination, are the basic
factors involved in winterkill. There are
no techniques that will completely control
winterkill, but there are practices which
may help reduce the severity of the damage
and speed recovery in the spring. This in
itself would be a great accomplishment.

Tucker Tournament

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College and universities which sent dele-
gations to the 1956 Tucker event included
Hardin Simmons, Western Illinois, Nor-
wich, Tulsa, Arizona State, Texas State