

CTRF—

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cold tolerance. Collaborative work with Penn State University may one day result in commercially available, turf-type *Poa annua* seed for use in Canada. *Poa annua* is such a prolific and successful weed species that could make a good putting surface if we could improve its winter hardiness.

*Will prolonged ice or snow cover damage *Poa annua* or creeping bentgrass?*

Tompkins, Ross, and Moroz Prairie Turfgrass Research Center, Olds College, Alberta (2nd yr of 3 year study)

Turf managers have always been concerned when greens become covered in ice. The question arises as to whether the ice should be removed. Research from the 1960s recommended removal of ice covers before 50 days. This study was designed to define specific ice cover tolerance, using laboratory and field data. Dr. Darryl Tompkins and his team discovered quite a difference between *Poa annua* and creep-

ing bentgrass. *Poa annua* plants were dead after only 60 days covered in ice. In contrast, creeping bentgrass plants showed cold hardiness to -26 °C after 90 days of ice cover before 50% of the plant population died. After 120 days of ice cover, this cold tolerance was further diminished with 50% of the population dying at -16 °C.

A related field study compared the effects of snow cover, snow removed in February, ice cover and ice removed in February for the two grass species. Ice covered *Poa annua* plants were dead by late February after a period of less than 40 days. Creeping bentgrass plants in all treatments could tolerate temperatures below -20 °C into April. However, plants from plots where the snow and ice were removed had reduced levels of cold hardiness. Therefore, to be safe, ice should be removed from *Poa annua* within 30 days of cover, but bentgrass should survive 90 days of ice cover.

Is there a Biological control of grey snow mould?

*Hsiang and Liu (5th yr of 7yr study)
Dept. of Environmental Biology,
University of Guelph, Ontario*

Grey snow mould is a common disease of turfgrasses in areas where there are over 90 days of continuous snow cover during the winter. The disease is caused primarily by two fungi in the *Typhula* genus and is commonly controlled by synthetic fungicides on many golf courses in Canada. Although excellent control of this disease can be achieved with fungicides, societal concerns of the environmental effects of synthetic pesticides compel us to investigate alternative management approaches.

Dr. Tom Hsiang has been working with a fungus that has shown to have antagonistic abilities against the fungi causing the grey snow mould disease. Dr. Hsiang has been able to isolate a few very effective strains of this fungus that can suppress grey snow mold as well as a fungicide. Tests to ensure that this biological control for grey snow mould is not toxic to plants, animals and humans are currently being conducted and possible application techniques are being examined.

Can the microbes in your soil predict the health of your greens?

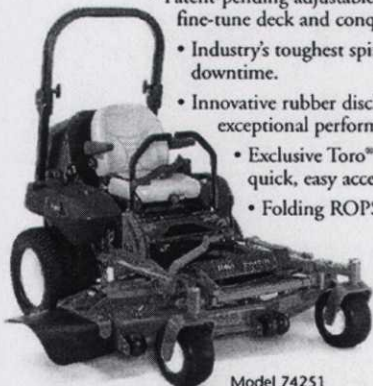
F.B. Holl, Dept. of Plant Science,

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