

# Silvery Thread Moss

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## Introduction

Silvery thread moss (*Bryum argenteum*) is a problematic weed of golf course putting greens. Moss invasion on putting greens is commonly associated with wet conditions. Factors that can lead to moss formation include poor drainage, excessive thatch, shade, thin turf, and low mowing heights. While silvery thread moss is the most common moss weed of golf course putting greens, other mosses such as *Bryum lisae*, *Amblystegium trichopodium*, and *Brachythecium* spp. are known to infest these areas as well. Moss can be a difficult weed to eradicate, and a combination of cultural and chemical practices are required for adequate control.

## Identification

Silvery thread moss can be identified by the silvery cast given off by individual leaflets. The collection of leaflets, known as a gametophore, form a tuft of moss called a gametophyte. The gametophytes can spread throughout a putting green by mowers, water, and foot traffic, affecting the playability of the green. An individual gametophyte can contain thousands of gametophores, each with the ability to form a new colony if spread throughout a green.

Figure 1. Silvery cast of silvery thread moss.



Figure 2. Collection of moss "tufts"- or gametophytes.



Figure 3. Individual gametophores with silvery tips.



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## Management

Silvery thread moss forms a dense canopy that is able to out-compete the desirable turfgrass species of a putting green, typically creeping bentgrass or annual bluegrass. It is often very challenging and a long process to eradicate a silvery thread moss infestation on a putting green, even with proper management strategies. The best strategy for preventing moss on a putting green is controlling surface moisture. Over-watering, shade, and poor drainage can all lead to excessive surface moisture which will favor moss formation. Core aeration is a common practice that can not only improve gas/air exchange, but also remove thatch from the soil surface. Excessive thatch will prevent water from penetrating the soil, leaving excessive moisture near the surface.

Typically, silvery thread moss is only seen on putting greens because this surface is mowed the lowest on a golf course. Even small increases in mowing height can dramatically reduce moss pressure. Fertility can also play a role, but it varies between nutrients. Iron applications can reduce silvery thread moss populations, yet low levels of potassium can increase moss populations. Many golf course superintendents spoon-feed nitrogen to their putting greens to manage growth. This strategy can potentially increase silvery thread moss coverage since mosses only require 1/10 the nutrients of turfgrass, whereas excessive nitrogen applications could potentially be detrimental to moss survival.

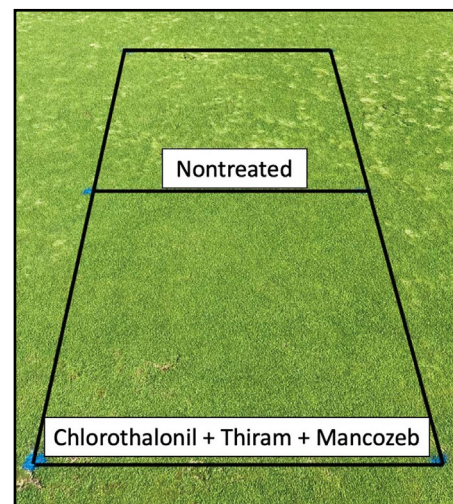
When moss coverage is severe, there are several chemical options available to manage populations. Carfentrazone-ethyl is an excellent moss control product, and it is the only herbicide labeled for silvery thread moss control on golf course putting greens. Unfortunately, the effects of carfentrazone-ethyl are short-lived, and continuous reapplications are necessary. Fortunately, there are several fungicidal options available for controlling silvery thread moss.

Chlorothalonil is highly effective against silvery thread moss. Chlorothalonil is often used by golf course superintendents for foliar disease

management, so the use of it can help control multiple pests at once.

Other fungicides including fluazinam, mancozeb, and thiram have the potential, when mixed with chlorothalonil, to provide better moss control than chlorothalonil by itself (Figure 4). Superintendents should combine the use of chemical practices with sound agronomic principles for maximum control of silvery thread moss.

Figure 4. Silvery thread moss control with Fungicides.



## References

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