

Silver moss (*Bryum argenteum*)

Background

Silvery thread moss is becoming more common for several reasons.



- Species appears to survive well in **bent grass** greens
- **Climate change** is creating more favourable climate for this species
- Iron based products only provide a low level of control and spores of this species are tolerant to iron
- Spores spread by cultural practices and players
- Increased use of **spoon-feeding nitrogen** and low rate multiple foliar nutrition
- **“Little and often” irrigation**
- Pressure to **reduce cut height**

If we go back to basics, the above should be no surprise moss survives best in moist conditions, nutrients are taken in via external capillary action between moss shoots that make up the silvery thread moss colony. All these are encouraged by the above practices.

Best practice to reduce

- Silvery thread moss does not like cultivations that dry out the surface. Improve water infiltration with aeration, verticutting, coring solid, hollow & micro
- Topdress infested areas regularly with sand. The inclusion of Profile has shown to enhance water infiltration and hence reduction of silvery thread moss. Increased top dressing will also in effect raise cutting height by burying crowns
- Reduce use of foliar nutrition, particularly urea-based formulations, replace the nutrient with suitable granular applications
- Mowing. Many researchers have found that moss is even more competitive when mowing heights are reduced. Mow higher and alternate mowing with rolling to encourage turf health

Chemical Control

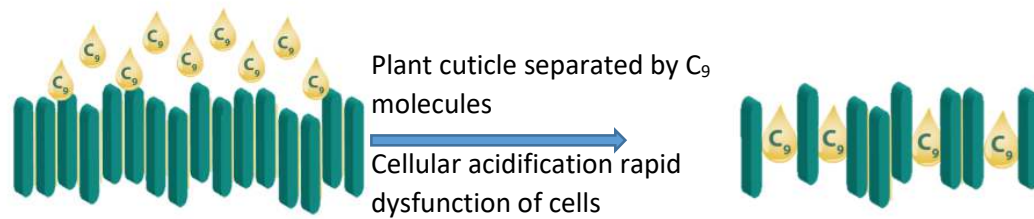
There are now no selective chemicals available for silvery thread moss control on greens.

Rigby Taylor has been testing a range of active ingredients for their ability to control/kill silvery thread moss. These trials have looked at various formulations and types of iron as well as other herbicides. The ideal candidate would only control the moss and leave turf grasses unharmed. We have found a suitable candidate that provides excellent control of moss and in particular silvery thread moss. The product is Katoun Gold which contains 500 g/l of pelargonic acid. However, this active works by contact action on a wide range of green plants. In order to make use of this very good control we need to find a way to apply the product as a spot treatment and minimise the damage to turf.

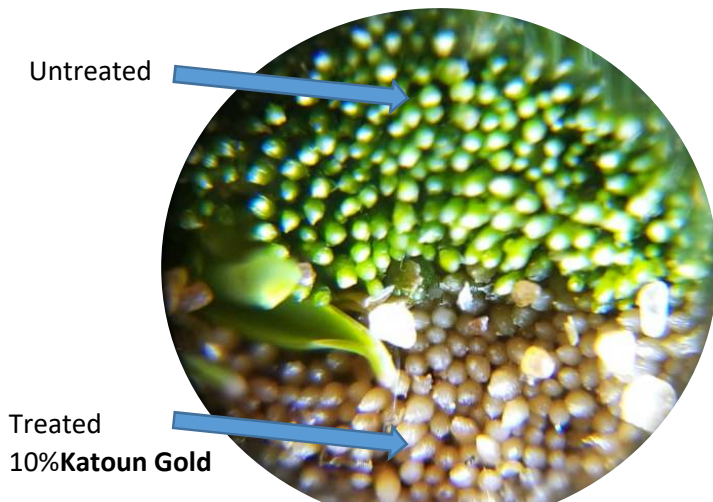
Mode of Action – Katoun Gold (Pelargonic Acid)

Pelargonic acid is a naturally occurring, saturated, nine-carbon fatty acid (C9:0). Pelargonic acid occurs widely in nature in products such as goat's milk, apples, grapes, sunflower and rape seed.

As a herbicide, pelargonic acid causes extremely rapid and non-selective burn-down of green tissues. The rate of kill is related to temperature, but under all, but the coolest conditions, the treated plants begin to exhibit damage within 15-60 minutes and begin to collapse within 1-3 hours of the application. Pelargonic acid moves through the cuticle and cell membranes and lowers the internal pH of the plant cells. Over several minutes the pools of cellular ATP and Glucose-6-phosphate decline. After a short time membrane dysfunction, which eventually leads to cell leakage, collapse and desiccation of the tissue.



Effect of sponge spot treatment on bent golf green and silver moss 7 days after treatment using Weedstick+ applicator with a 10% solution of Katoun Gold – 100% control of silver moss



Treated 10% Katoun Gold.

100% control of silver moss 10 days after application – surface playable no ball deviation between treated and untreated



After treatment areas can be reseeded within 2 days of application

Disc to left was reseeded with R105 10 days after treatment using Acupro seeder (details on request) photo take 19 days after treatment

Treated disc 19 days after application, 9 days after reseeding regrowth of bent clearly visible also ingress of bent from perimeter disc 60% of original size. Silver moss control remains 100%

RECOMMENDATION

Apply 10% solution of Katoun Gold via a Weedstick+ applicator, for young colonies use 1 dab for heavy infestations apply two dabs to silver moss. (see Silver Moss RT manual instructions)

After 3 days reseed treated areas ideally insert seed into remains of silver moss.

Silver Moss Application Kit contains: 5 litres Katoun Gold, WeedStick+, 100ml Measuring cylinder, spare sponge, instructions

Product code: 2170732

