envu® Golf

Talking Turf

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Summer Patch “NEW SPECIES” Alert

Summer patch is a destructive root disease of cool-season turfgrasses on golf courses, traditionally associated with the pathogen *Magnaporthe* (*Magnaporthiopsis*) *poae*. This fungus infects roots and crowns as soil temperatures rise in the spring, leading to characteristic circular patches of wilted, chlorotic turf (Fig 1) that can coalesce into large areas of decline (Fig 2). In highly managed environments such as putting greens, tees, and fairways, *M. poae* is well known for its ability to persist in soil and thatch, making long-term control difficult and largely dependent on preventive fungicide programs and cultural practices that reduce plant stress.

Fig 1

Fig 2

Recent attention has turned to a newly described species, *Slopeiomyces cylindrosporous*, which has been linked to summer patch-like symptoms in turfgrass systems (found to infect both poa and bentgrass). While visually and symptomatically similar to *M. poae*, this organism is genetically distinct and appears to expand the environmental window under which damage can occur. Early microscopic analysis shows that this species appears very similar to *M. poae* morphologically, making it difficult to distinguish. Preliminary research from Rutgers University indicates that *S. cylindrosporous* dominates samples in the northern USA and Canada and may be active at soil temperatures around 50°F (10°C), significantly lower than the typical activity threshold associated with *M. poae*. This broader temperature range may explain reports of summer patch-type symptoms in regions such as Calgary, Alberta, and Victoria, British Columbia, where soil temperatures often stay below the classic risk range for *M. poae* activity. Dormant structures like cessation structures are commonly found in crown tissues (Fig 3) and upper roots (Fig 4), blocking nutrient flow to foliage. Hyphae is dark brown and colonizes the exterior and eventually the interior of the roots (Fig 5), which is typical of ERI (ectotrophic root infecting) fungi. Eventually the crown and roots die causing unsightly chlorosis especially on greens.

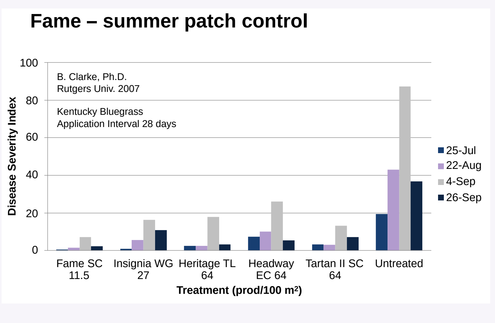
Fig 3

Fig 4

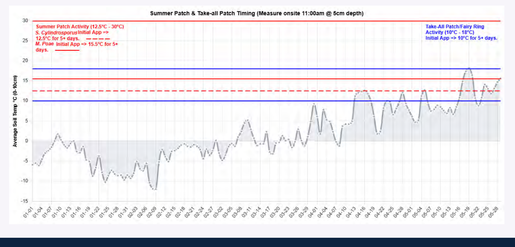
For golf course superintendents, these findings have important management implications. The earlier onset of pathogen activity suggests that preventive fungicide applications may need to be initiated sooner than traditional *M. poae* timing models would recommend. In addition, accurate diagnosis – particularly using molecular tools – will become increasingly important to differentiate between these pathogens and refine control strategies. Cultural practices such as improving drainage, reducing compaction, and managing plant stress remain essential. Evolving research at Rutgers and Guelph universities on *S. cylindrosporous* will shed light on future summer patch programs for cool-season turf to account for a potentially wider disease pressure window.

Fig 5

While we wait for university data, we have updated our TurfView® platform to help you time your spring apps to cover this emerging pathogen in your region. If you have already had early symptoms of a summer patch-like disease in previous years, go in when soil temps are around 10°C at 11 a.m. for 5 consecutive days, with products like Fame® SC fungicide for preventative summer patch and take-all patch disease prevention. Going in with the higher rates of Fame SC is your best defense against cool-season ERI fungi that occur in cooler temps while offering control against 9 additional diseases like Anthracnose basal rot and Rhizoctonia fungi. Adding in several rotations of Rhapsody® biofungicide is an important measure for resistance management as well as plant root health benefits to ensure season long success.



TURFVIEW®



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