



Microdochium Patch

Overview

Microdochium patch (*Microdochium nivale*), often referred to as Fusarium patch in older references, can be active fall through early spring during periods of slow turf growth on both cool- and warm-season turf. Contributing factors include wet conditions during maximum daytime temperatures of 45-68°F, shaded or poorly drained locations, high soil pH, and excessive nitrogen fertility. Explosive outbreaks can occur when daytime temperatures are in the low to high 60s with overcast, foggy or wet weather. Microdochium patch is most common on cool-season turf, especially annual bluegrass.

Symptoms

- Small water-soaked spots appear and expand turning gray or tan with a red-brown or dark, greasy margin (Figure 1).
- Fluffy white mycelia are sometimes observed at the edge of the patches (Figure 2).
- If the disease is left unchecked, it can spread rapidly by mowers across playing surfaces.

Cultural Management Strategies

- Prune to reduce shade and maximize air movement.
- Improve drainage where possible through frequent topdressing and aerification.
- Reduce pH at soil surface / turf interface.
- Maintain moderate but not excess nitrogen.
- Apply potassium phosphite and iron sulfate every two weeks (Oregon State research).

Fungicide Solutions

- Use flat fan nozzles to optimize spray coverage.
- Maintain a consistent 14-21 day preventive fungicide program starting in fall. As with most foliar diseases, minimizing inoculum in the absence of symptoms is critical to long-term control.
- Iprodione resistance has been documented in Microdochium patch, so rotate fungicides with different modes of action including systemics like Token™ SC (fludioxinil) and Gunner™ 14.3 MEC (propiconazole), as well as contacts like Detour™ 4 SC (fluazinam) to reduce the chance of resistant populations developing.

Figure 1. Initial symptoms of Microdochium patch developing on an annual bluegrass putting green. Photo credit: Rob Golembiewski, Atticus



Figure 2. Mycelium of Microdochium patch is often visible with cool-humid conditions. Photo credit: Rob Golembiewski, Atticus

