



## Superbugs



*resistant fungal strains that can cause serious turf damage.*

Cases of people developing serious complications from staph infections following seemingly simple surgical procedures have increased public awareness and fear of antibiotic-resistant strains of bacteria. According to the [Mayo Clinic](#), decades of inappropriately prescribed antibiotics have accelerated bacterial evolution, creating so-called “superbugs” that are resistant or immune to many common antibiotics.

Some fungi that cause serious turfgrass diseases have also achieved “superbug” status; a good example is the fungus that causes dollar spot. Even golf courses with extremely limited budgets find it necessary to spend time and money applying fungicides to prevent or control this widespread disease. Under certain conditions the small, dime-sized spots of blighted grass caused by dollar spot fungi can quickly grow, coalescing into extensive patches of sparse turf that disrupt playing quality. Unfortunately, an increasing number of golf courses have noticed that, over time, once-effective fungicides offer little or no control of dollar spot.

Similar to the staph scenario, over-reliance on certain fungicides has allowed some fungicide-resistant strains of fungi that cause turfgrass diseases to multiply.

What can be done to avoid fungicide resistance? Savvy turf managers use non-chemical maintenance practices to manage disease outbreaks whenever possible. In the case of dollar spot, infections require long periods of leaf wetness, so removing early morning dew can provide fungicide-free disease suppression. When fungicides are necessary, superintendents carefully rotate among different chemistries to prevent the development



of fungicide resistance. Using combinations of products can also help avoid fungicide resistance.

Superintendents prioritize judicious use of fungicides to reduce the risk of developing fungicide-resistant disease strains. Limiting turf stress and promoting plant health is an important part of reducing fungicide use. Stressed turf is more vulnerable to disease than healthy turf in the same way that people are more susceptible to cold and flu when stressed. Turf may occasionally need a helping hand to fight off an infection, but superintendents know that overzealous fungicide use is bad for the golf course and bad for the bottom line.