



Practical Dollar Spot Reduction

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With record rainfalls in many parts of the province and high humidity, it wasn't uncommon for golf courses to require several extra fungicide applications in 2024. These unplanned applications have the potential to wreak havoc on a club's balance sheet affecting the bottom line. Increased active ingredient load and intensifying concerns of developing a resistance to some formulations are also matters to consider. It is not realistic to think that these extreme weather patterns will decrease in the future. So, what can be done to reduce the number of fungicides we are applying to combat dollar spot, specifically on fairways, our largest treated acreage? This article will be a refresh on some of the agronomic basics that can help mitigate pathogens without treating chemically.

DEW REMOVAL

When dew is present, it can create an unnecessarily moisture-rich environment which is ideal for the fungal spores to develop, reproduce, and spread. By mechanically removing dew daily we can disrupt the environment where the disease is thriving. Many maintenance teams remove dew simply by mowing several times a week, but on no-mow days what can be done? It is very common to remove dew with a drag rope system. Dew dragging can be a 1- or 2-person job, and we know labour is not only hard to come by but also expensive. It might be worthwhile however to do a case study on the expense of that labour compared to the cost of applying 1 or 2 more fungicide applications. Having these facts may help when reasoning with your stakeholders.

Another common dew removal method is rolling. Rolling can remove or reduce the moisture on the leaf blade where the pathogen infects and spreads. The benefits of this practice go far beyond dew removal. Rolling can increase turf density; a strong dense stand has a better ability to defend against disease but also an increased proficiency for recovery. Rolling can also increase drainage pushing water through the canopy into the soil profile. Choosing roll over mowing can also reduce turf injury or wounds where the pathogen enters the plant.

Regardless of how you remove dew this practice can reduce dollar spot outbreaks and increase the duration of fungicide efficacy.

WATERING PRACTICES

Having properly timed and effective watering practices is the same principle as dew removal. Maintaining dry leaf blades reduces the spread and severity of pathogens. Having the latest possible watering period before sunrise reduces the amount of time the plants and fungal spore sit wet. Also reducing the frequency of watering by employing a deep and infrequent strategy limits the days that moisture is present. We know this practice also improves root depth and overall plant health, which contribute to recovery and resistance to disease issues.

TURFGRASS VARIETY SELECTION

For most clubs the idea of re-grassing fairways is a larger undertaking. Taking on a project like that just to reduce dollar spot severity doesn't seem practical. That being said, if your club has already decided to do a renovation, it makes sense to base your decision on grass variety according to dollar spot resistance on National Turfgrass Evaluation Program (NTEP) trials. For many, this decision may entail picking a more resistant variety for divot mix, and over time the impact of this will be greater than expected over time.

THATCH MANAGEMENT AND SOIL HEALTH

Managing thatch can play a key role in improving plant health but also reduces the growing environment for disease. The decaying plant tissue found in areas with excessive thatch hold moisture and is the perfect environment for fungal pathogens. Thatch management also contributes to having a healthy root zone, and likewise healthy turf. Thatch management can range from vertical mowing to core aeration. Utilizing tools such as OM 246 to quantify these factors can help decide what measures to take rather than guessing or doing the same actions year over year according to the calendar. Having this data can also ensure that agronomic standards are being met across

each of our individual properties as some areas may be more prone to thatch accumulation than others.

Soil health can imply several factors. Having a good aeration program helps not only to reduce thatch but also helps with nutrient penetration and you guessed it, water percolation, helping to keep the turf surface as dry as possible. Soil health has a strong correlation with cation exchange capacity (CEC). Aeration helps increase CEC, but amending the soil to change the physical properties through topdressing provides another avenue. Thinking about the basics of our soil triangle is crucial. Increasing CEC can be achieved with organic matter topdressing and a reduction can be achieved with coarse sand topdressing. Understanding your soil on your property will help meet testing recommendations thus increasing plant health and reducing pathogen severity.

FERTILITY

The relationship between nitrogen fertility and dollar spot is closely linked and balance is essential. Overly lush turf is often attributed to over fertilizing resulting in excessive growth which can make the plant more susceptible to some disease infections. Alternatively, not applying enough nitrogen can also weaken the plant and increase the severity of other pathogens. Ideally, consistent nitrogen applications throughout the growing season help maintain healthy turf. Applying appropriate amounts of nitrogen fertility according to plant needs and soil testing results can help grow healthy plants and improve recovery.

FUNGICIDES

Turf managers should always play offense when it comes to disease management. Employing those positive cultural practices like dew removal, thatch management, proper fertility and irrigation programs should be on the front-line in the quest for healthy turf. Quite often though these cultural practices are not enough, a threshold is crossed, and fungicides must be applied to maintain healthy turf and quality playing surfaces.

Battling dollar spot is not a one-dimensional undertaking. Applying more fungicide and increasing budgets is not a long-term solution, as golf goes through economic ebbs and flows. Increasing active ingredient loads and building a resistance to chemistry is something

DISEASE MANAGEMENT PLAN

Keep the following points in mind when devising a disease management plan for your course:

1. Good scouting record keeping is key. With good IPM records and by identifying the key indicator and hot spot areas of your course, you will be able to predict when turf disease outbreaks will occur, which can help you decide when to make...
2. ...preventative fungicide applications. It is more beneficial in the long run to apply a fungicide preventatively, when inoculum levels are low, than curatively, when shorter control intervals may result and higher rates of one (or two) fungicides may be required. When opting to tank mix multiple fungicides, ensure both offer control over your target disease.
3. Make smart fungicide choices. FRAC rotation management, choosing the most effective fungicide for the target disease, tightening spray intervals when disease pressure is high and applying at the proper rate for the desired length of control are all crucial to a sound management program. The number of fungicide choices can be overwhelming, and new products have entered the market recently. Consult your vendor or distributor representative for help with your disease control program but be sure to connect with your neighbours and find out what they are dealing with and what has worked (and maybe not worked so well) for them.

that will continue to be closely scrutinized. However, implementing even one of the strategies mentioned above could help reduce the severity of dollar spot dramatically. Having healthier, more playable, and aesthetically pleasing turf will mean a better experience for members and golfers, which is a true measurement of our success as turf managers. ■

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