

Ideas about growing grass

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Jason's Productivity Files

WEDNESDAY, 17 AUGUST 2011

IPM in Action Against Dollar Spot

During some recent disease monitoring we have noticed that conditions are prime for the dollar spot fungus. Dollar spot is a fungus that attacks the leaves of turfgrass during periods of prolonged dew, warm temperatures, nitrogen deficiencies and drought stress. As this is August and the nights are a bit longer now we are seeing a longer period of dew than we would normally see during the months of July.

Hole 9 in particular had the worst outbreak of the disease as can been seen in the above photo.



Dollar Spot Fungus on #9 Fairway



#8 Fairways has almost no disease

Hole 8 on the other hand has almost no sign of the disease. Both of these fairways have the same fertility, soil type (rock), cultural practices, and moisture levels.

At Pender Harbour we don't apply any pesticides to our fairways. At first this was due to the prohibitive cost of the chemicals but it has evolved to the point where we really don't need them. Most disease activity during the summer months really only causes aesthetic damage and has very little effect on the actual playability of the course. We maintain our fairways at 0.5" and grass cut at this height is often very capable of outgrowing disease damage in our climate. I must stress that our climate is quite moderate in both the summer and winter. We rarely see snow, temps below -5 celcius or above 25 celcius. Course with climates with more extreme conditions would have a much harder time growing turf at less than 0.5" without the help from at least a little pesticide.

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Turfg I've to and a goog Back to the disease. The only real difference between the two fairways is the time at which they are irrigated at night. Hole 9 is watered last at about 6am. Hole 8 is watered between midnight and 4 am. These days we are seeing dew fall at about 9pm and last to about 10am in the morning. Irrigation water knocks the dew off of the grass leaves and into the soil and reduces the amount of stagnant moisture on the leaf blades. By irrigating hole 8 in the mid- night we are able to see a drastic reduction in the dollar spot fungus. This is even more evident on our fairways due to the fact that there is zero effect on the disease from pesticides.

So now we know what time of night we should irrigate our fairways to reduce disease. But we can't water all of our fairways between these hours. With our system's capacity we are only able to water 2 fairways during this time. All other fairways are going to see a higher disease pressure.

But in the grand scheme of things we really don't care if our fairways get disease anyway. As I stated earlier, the disease on our fairways this time of year is purely aesthetic.

We do care about our greens though. Any amount of disease on our putting greens greatly reduces the quality play and the turf surface. Dollar spot can quickly cause a great deal of damage on our putting greens and we often are forced to apply a fungicide when an outbreak occurs.

Fungicides are expensive and time consuming to apply. Talk to any Superintendent and they will tell you that they would do anything to reduce the amount that they spray.

So using the information that my chemical free fairways have shown me I am able to greatly reduce the disease pressure on my putting greens simply by irrigating between the hours of midnight and 4 am. Simple and free. Normally we water the greens right before we cut them in the morning. This is done to reduce the leaf wetness during the spring and fall months and helps fight the disease called Fusarium. Fusarium is a bitch. Fusarium also isn't really a problem this time of year so we can water our greens any time we want.



The single Dollar spot sign on our putting greens

Superintendents who regularly spray their fairways won't be able to see as clearly the effects of watering time on the disease pressure as those who don't use chemicals. The chemicals often fight the disease entirely on fairways. I stress again that in some cases chemicals are required on fairways for disease pressures that I do not see on the West Coast and in no way am I pointing fingers at anyone here. Do what you have to do. I, fortunately, don't have to do squat to my fairways.

There are other methods using dew points and temperatures that can be used to determine what time of the night you should water but I find that using my chemical-free fairways as an indicator works best for





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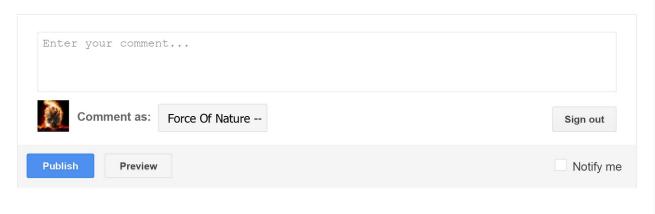
smooooth putting greens are nice

So far my change in irrigation scheduling has seemed to be working. I have gone 6 weeks in severe dollar spot pressure without applying any chemicals to my putting greens. And for you nay-sayers out there, my greens aren't those kind of greens that you see at "organic" courses that roll at 6 on the STIMP and are full of divots and weeds. They regularly roll over 10' and are as true as time!



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