TURF HACKER

Ideas about growing grass

SATURDAY, 22 OCTOBER 2016

1 fungicide app per year. Is there more to wood ash than we think?

It's no secret that I try pretty hard to reduce the amount of pesticide required on my golf course. I've tried a lot of things and over the years have refined my IPM strategy to only do what makes a real difference. They cost a lot, the public perception of pesticide use is negative, and it is a fun challenge to try and work towards reducing the use of pesticides on my golf course.

Things that didn't make a significant impact have been removed from my program. This past summer I went longer than ever between traditional broadcast fungicide applications or about 192 days. In previous years I would consider 60 days something to be proud of. Even so, I still required spot applications of traditional fungicides to stop disease spread and track the disease pressure of dollar spot on my greens.

Recently I came across this tweet.

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Rob Wilke
@RobWilke1

A complete year #fungicide free. Aeration, rain and cold haven't made a dent in our no fusarium success. #allorganic #free

♡ 39 2:18 PM - Oct 13, 2016

See Rob Wilke's other Tweets

Holy Smoke! Rob is making my efforts look like a joke.

I know Rob, he's the superintendent at the golf course in Terrace, B.C. They have a similar climate as here except they have a true winter with regular snow which requires a winter snow mold fungicide. In the past 2 years Rob has only had to apply his snow mold fungicide applications, and nothing else as far as traditional fungicides go. This is despite having as little as one month of snow cover in the winter.

I have heard of others doing the same or similar things but they are in much more arid climates where they have more control of moisture on their grass. On the West Coast of Canada we are inundated with rain for most of the year which makes disease management a huge issue to deal with (if my blog hasn't made that obvious already).

This is why Rob's tweet above got my attention. It's no joke maintaining good grass in this climate without traditional fungicides.

So what is Rob doing that I'm not? Well, a lot of things but this is what he thinks makes the difference.

Rob Wilke
@RobWilke1

Replying to @PenderSuper

if disease is heavy 😂put 16 cups ash & 8-10 cups organics (compost). Agitate/aerate for a day or two. Filter and spray.

♡ 1 9:31 AM - Sep 8, 2016

See Rob Wilke's other Tweets

Oh boy, here we go. I've had run ins in the past with compost tea users. Those who use it haven't been able to show me in a meaningful way that it works and this post isn't here to debate compost tea. My biggest issue with it has always been that it costs so damn much and doesn't make a significant dent in fungicide or fertilizer budgets. This is especially evident for someone like myself who already has an extremely low budget for both fertilizer and fungicide on greens. A 25% savings in fertilizer on greens will only save me ~$60 a year.

I guess if it wasn't for compost tea, Rob wouldn't have stumbled across this discovery....so there's 1 benefit haha!

Another issue I have with Organic is that it usually comes with a compromise in quality. Not with Rob.

Rob Wilke
@RobWilke1

$37 of a 13k chemical budget used up. Still looking good I'd say 👍

♡ 10:22 AM - Jul 21, 2016

See Rob Wilke's other Tweets

But Rob's approach is almost free. Now we are talking the same language!

He also shared these pictures of clear lines of suppression similar to what you would see with a traditional fungicide application. This really got my attention.

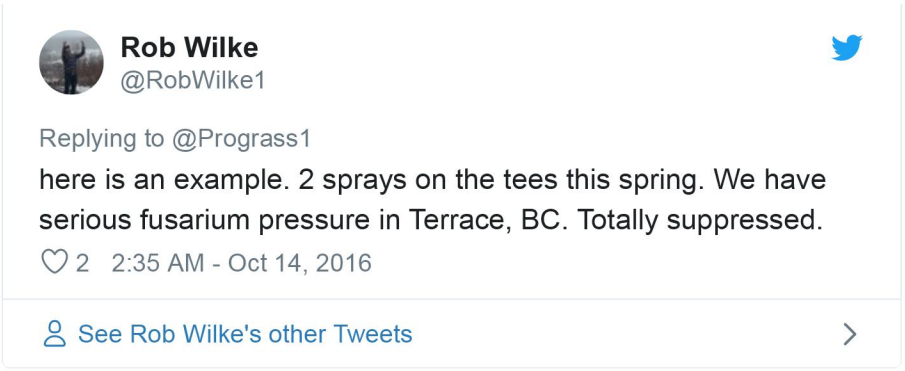
Rob Wilke
@RobWilke1

I think my assistant needs to spray full collars. Line by my shoe is evident. #allorganic #pesticidefree #free

♡ 3 2:41 AM - Oct 14, 2016

See Rob Wilke's other Tweets

Or this on his tees.



So Rob has virtually eliminated the need for traditional fungicides while his turf is actively growing which is a big deal. And he hasn't just done it for one year, he has done it for two years. This suggests that it's not just good luck that is the result of his success. Further prodding Rob with questions revealed that he thinks that it is the ash and not so much the compost that is the reason for his disease management success.

I decided to do some internet research about wood ash.

Most of what I found had to do with the chemical properties of wood ash. It has varying amounts of plant nutrients and is used as a fertilizer in low pH soils as it has a very high pH. It seemed that everything that I could find had to do with either the nutrient content or the pH of the ash.

Then I came across some people who reported using ash to kill algae in their ponds. In some instances people report using 1 tablespoon of ash to treat a half acre pond! Wow that is a low rate for such a big impact. Surely this small concentration of nutrients and pH has no impact on that amount of water. It must be something else that is killing the algae or these reports are total BS.

Wood ash can also be used to make Lye or potassium hydroxide, a highly caustic product used to make soaps, drain cleaners and can be used to dissolve tissue. Yes it can be used to dissolve your flesh off your bones. Maybe this property is having some impact on the fungi? Hmmmm

Making Lye involves leaching ashes in water...exactly what could be happening when you put ash into a compost tea brewer. Maybe the combination of compost and wood ash has something to do with it?

Either way, it's worth taking precautions if this is the byproduct of putting wood ash in a compost tea brewer for a few days. Bottom line, be careful.

So with nothing to lose I have decided to give wood ash a try on my tees this winter. It's free, I have a ton of it (wood heating in shop), and it gives me something new to try and learn from. But in order to build off Rob's success I needed to know more so I decided to interview him to get all the goods. Big thanks to Rob for sharing so openly about what he is doing, this kind of attitude is what helps our profession grow and move forward.

Jason: What exactly are you applying to your greens?
Rob: We started with 8 cups (compost) and 8 cups (ash) and saw some improvement, went to 12 and 12 and have since backed to 10 & 10 (I measure out 10 cups of ash and it weighed 1.5kg (3.3 lbs)

Jason: How do you make it?

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Rob Wilke
@RobWilke1

Replying to @Prograss1

I put 10c. compost and 10c. ash in a filter bag and aerate it in water. Filter liquid into sprayer. Clean nozzles every 6 greens.

2:26 AM - Oct 14, 2016

See Rob Wilke's other Tweets

Jason: How big are your greens?
Rob: 122K sq ft of poa/bent

Jason: How often do you apply it?
Rob: Once a week with fert apps or less in the spring and fall when I don't apply much fert.

Jason: What spray volume do you spray it at?
Rob: 125 gallons does all greens and collars. (about 1 gallon per 1000sq ft or 3.8L per 100m2)

So he's applying about 12g ash in 3.8L water/100m2 every week. (0.4 ounces in 1 gallon per 1000 sq ft) With that rate I could apply it to fairways!

Jason: How did you come across this?
Rob: I just noticed that grass grows well after a spring burn so I tried it.

Jason: Do you think it is the biological aspect of the ash and compost combined or just the ash?
Rob: I've got our mix tested and very little biological benefits as I see it.

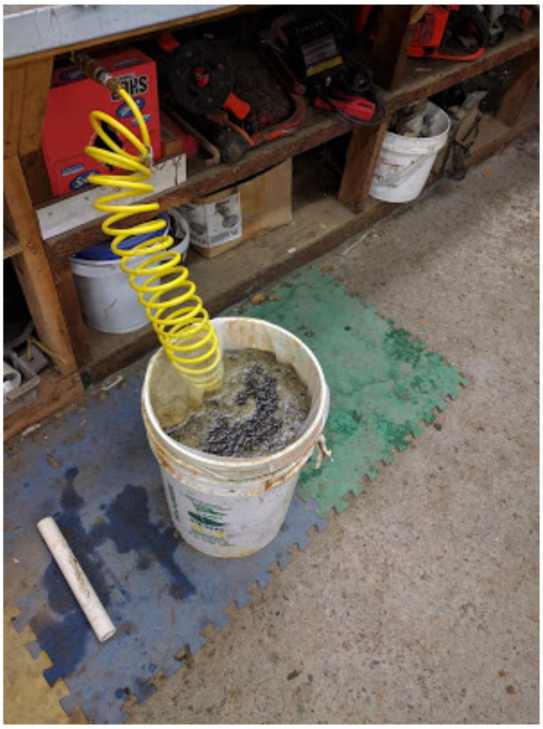
Jason: Do you apply it with other products?
Rob: I mix it with most ferts including Urea. Don't mix it with chelated calcium.

Jason: Do you think it's just the ash or other IPM practices as well?
Rob: I think the ash compost is the ticket. Our soil science has been worsening as my budget decreases. Greens pH as low as 5.3, low in many micros and high in hydrogen. Irrigation water that is so clean it strips nutrients

So there you have it. I will be playing with this on my tees this winter and will include control plots. I have already applied a heavy iron application 3 weeks ago which has knocked the fusarium back quite a bit. I will stop the iron and switch to the ash applications to see what happens. I will also do some applications on a few of my troublesome greens this winter along with control plots.

Most of Rob's experience has come during the growing season as his course is covered in snow all winter. It will be interesting to see if it works at all during the cold winter months on my course. As he and I don't think it's the biological aspect of the ash or compost that is the reason for the control I think it could work even in the cold winter where the soil biology is slowed.

I am skeptical at this point but am open to the idea especially since it is free and will give me something to do this winter and maybe it will kill some grass! Something this easy and free just seems too good to be true. We all know that disease management involves a lot of factors and I am sure that Rob does a whole host of other things that result in his success. Will ash prove to be a viable disease management option for me? Stay tuned to find out!



low tech compost tea brewer in action

Posted by Jason Haines

Labels: experiment, Fusarium Patch, Organic, super interview, Turf disease

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