



The Buzz in the Turfgrass Pathology World: Part I

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In today's world of increased environmental concern, many chemical companies are developing new products that pack more of a punch with less active ingredient. Also, the equipment manufacturers are responding with new machines that more efficiently deliver pesticides and even are site specific so that the chemicals they deliver work with increased efficacy. This article will be part of a series that will focus on new technologies for application and the constantly changing market of fungicides and biological control strategies.

Injectors

The injector has rapidly become the weapon of choice for improving soil aeration in the middle of the season for good reason — it causes little to no disturbance to the green's surface. Well, now they may offer a new possibility in your arsenal for the battle against diseases. Work done by Dr. Bruce Clarke at Rutgers University has shown that with the use of such equipment to inject fungicides it can be used effectively for controlling some root-infecting fungi. Not only does this application method increase control, but the rate of fungicides can be reduced (Bruce Clarke, personal communication).

However, as with everything good, there are drawbacks: the treatment must be placed about 3/4" deep or at the thatch soil interface. This is very important if you are using a DMI fungicide (Rubigan, Bayleton, Sentinel, Banner, Eagle) as these chemicals are tied up by soil particles, and will be rendered useless if injected too deep. Also, the use of chemicals through some injectors can deteriorate parts of the equipment, so the new material injectors must be used.

If you don't have the money to purchase this new technology, there are other ways to improve your control of diseases such as take-all patch and summer patch without them. When controlling these diseases, additional research by Dr. Clarke has shown that pre-watering the area, followed by the fungicide application and then no more than a 1/4" of irrigation will significantly improve control. It also helps to do this on an overcast day which will decrease the dry time and will give you more time until you have the opportunity to water in the fungicide. I must also caution that his research has shown that irrigating more than a 1/4" after a fungicide application has a detrimental impact on the efficacy of the fungicides.

26 GT

No, I am not talking about a sports car, but Chipco 26 GT. This product that you may have seen in some of my trials this past year is a new formulation of Chipco 26019. So what makes this formulation different? According to a representative from Rhone Poulenc, it is a new formulation of iprodione (active ingredient in both Chipco 26019 &

Chipco 26 GT). The new formulation is supposed to increase the chemical's ability to knock down active mycelium. In turn, recovery time of the turf will be increased. Work done at other universities has shown that mycelial growth is suppressed within 24 hours. Since this product has activity on both dollar spot and brown patch fungi, it could be implemented into a curative or preventative spray program throughout the summer. Also, work done by myself has shown that it is very effective in tank mixes for management of snow molds.

Lynx

Whoever is responsible for naming cars must also be responsible for providing names to the chemical industry. Lynx, which I have tested over the past couple years, is a new DMI fungicide that Bayer Corporation hopes to release within the next year or two. Like all the DMI's, Lynx has proven to be very effective for control of dollar spot and brown patch when used preventively. With rates of 0.125-0.25 oz AI/1000 ft sq it will help with reduction of the quantity of pesticides that we should all be striving for.

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Currently, I am evaluating it for the control of snow molds, so be sure to attend one of our TDDL snow mold field days later this spring, and keep an eye out for this product to be released in the near future.

Signature

This is the new formulation of Aliette. The chemists at Rhone Poulenc have improved it in such a way that the product enhances the turfgrass quality. From what I was able to persuade from their representative, it actually increases cuticle thickness. It is also known that fosetyl-Al can induce defense mechanisms against fungi within the turfgrass plant, which could result in improved turfgrass quality during stressful periods. Also, like always, this product is still the only true systemic fungicide with both upward and downward movement within the plant.

Heritage

Since Heritage has been available for only a year, I guess that we could still consider this a new product. At the GCSAA Convention this year there was a lot of buzz about this product. Having tested it since 1992 I could understand why a lot of the industry is very excited about this product. It isn't everyday that you have a new class of fungicides to choose from. Azoxystrobin, the active ingredient in Heritage, is in the new family of methoxyacrylates. Being the new kid in the family we should see many new sisters and brothers developed in this family. While

Heritage is very active on both Pythium and brown patch, along with many other diseases, it does have the drawback of not controlling dollar spot. Early reports from other researchers who are currently testing other methoxyacrylates is that some have dollar spot control. Another interesting fact is that compared to the DMI fungicides, Heritage is not tied up by the soil particles and has proven very effective in the control of summer patch and take-all patch in my trials at the O. J. Noer Facility and in the trials from other researchers across the country.

Other Buzz

If you don't already know, the number of chemical companies has decreased once again. Within the last month Zeneca and ISK Biosciences have merged. This only enforces my Weed Science Professor's prediction that by the turn of the century there will be four major agriculture chemical companies, and the last time I looked we are fairly close to the number with only two years to go.

In the next edition of *The Buzz* I will present information on the Daconils and what makes the new formulations distinct. Additionally, I hope to take a look at what the "Maxx" is all about. If you have a product that you would like me to review, please drop me a line and I will be happy to do some investigative reporting for you. But, as you know I will never find out those trade secrets, and if I did I wouldn't be allowed to publish them without having a bounty placed on my head! ♣

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