#### TDDL



## The Buzz in the Turfgrass Pathology World: Part II

Jeffrey S. Gregos, Turfgrass Disease Diagnostic Lab, Department of Plant Pathology, University of Wisconsin-Madison

The snow has finally left, and it is time to start thinking about those summer diseases once again. Reports from around the state have shown that efficacy of some snow mold control products were put to the test with our unusual winter. But, from the past experiences, you know the grass will always grow back. So as we look forward, it is always nice to know what is available in our bag of tricks to battle diseases. In this article, I will once again provide some answers to the questions that I receive about the up and coming fungicides. More specifically, I plan to concentrate on the Daconils and the Maxxes.

#### **Daconil Ultrex**

Daconil Ultrex has become very popular since its release. But what is it that separates it from the Hall of Fame fungicide, 2787? Of course the obvious is that it is a dry formulation, but even more important is what is in this formulation. Ultrex employs technology using a carrier system of emulsifiers, surfactants, and wetting agents that enable it to stay in suspension longer than conventional dry formulations. Also, the particle size of Ultrex is finer and less dense than those of other materials, additionally enhancing its ability to stay in suspension. Information provided to me

from Steve Kammerer of Zeneca (You might recall from the last article that Zeneca and ISK have recently merged.), claims that it will go back into suspension as soon as the agitation is re-initiated, if your spray tank is left without agitation. If you are worried about rinsing those jugs, there are no jugs with Ultrex.

#### Daconil ZN

The newcomer in recent years is Daconil ZN. If you remember back to chemistry, Zn is the abbreviation for the element zinc. So what does zinc add to Daconil? About 4.14% by weight. But, on a serious note it is documented that the Daconil ZN helps enhance recovery from algal scum in comparison to Daconil Ultrex and Daconil WeatherStik. It comes in the same formulation as Daconil 2787, which is a 4.17 flowable, but is a Super WeatherStik formulation.

The Super WeatherStik technology comes from over 30 years of research to find away to effectively adhere the chemical to the leaf. I have seen in my snow mold trial this spring that it does increase the efficacy of the product.

#### **Daconil WeatherStik**

Finally the last of the Daconils, Daconil WeatherStik. I have included this product for two years in my snow mold trial, and I have to say that this technology works. I was amazed that an application at the Noer this year in early October resulted in only 1.3% damage. The other nice thing about this product is that it is a 6 pounds per gallon rather than the 4.17. So, once again their is less to dispose of.

#### **Banner Maxx**

What is all the Maxx about? It's about a new formulation of Novartis' well proven sterol inhibitor propiconazole, or more commonly referred to as Banner. You have heard of WP, WDG, F, and EC formulations, but have you heard of MC or Microemulsion Concentrate? This new formulation employs a technology that uses minute particles of active ingredient. These particles are around 0.1 microns in diameter, and are said to be upwards of 250 times smaller than other sterol inhibitor fungicides. Another nice thing about this product is that it is water-based, unlike many of the older EC formulations that were petroleum based. This reduces odor and almost eliminates any possibility of phytotoxicity.

Did you run out of time spraying this morning? No problem, Banner Maxx will stay in suspension for long periods of time. No more filling the sprayer's gas tank up and letting it run all day until you can get back out



to spray later. However, like the older formulation, Banner Maxx contains the same active ingredient, and is still a systemic fungicide in the sterol inhibitor (or DMI) family of fungicides. So, use of this chemical should employ resistance management strategies.

#### Subdue Maxx

The second of the Maxxes employs the same technology of the MC formulation and is also waterbased. But, Subdue Maxx has some added punch compared to the older formulation. Subdue Maxx contains a new isomer of metalaxyl, mefenoxam. Mefenoxam is twice as effective as metalaxyl, this is reflected in the reduced rates for application. For established turf rates are 0.5 -1.0 fl. oz/1000 ft2, half of what they were for the older formulation. Once again, resistance is an issue. Even though the active ingredient has changed, it is still in the same family of fungicides, so resistance management practices must be employed.

Because of my fungicide trials, I have the opportunity to evaluate many experimental chemicals and newly labeled chemicals. I also include some of the standard fungicides employed by the turf managers. So, a visit to the O. J. Noer Turfgrass Research Facility during the WTA and University of Wisconsin-Madison Field Day is a good opportunity to make comparisons of these products side-by-side. This year the Field Day will be on Wednesday, August 12, so be sure to mark it on your calendar and plan to be in Madison on that day. If you visit, you will be able to see disease control trials on Dollar Spot, Pythium, and Brown Patch along with other turf management studies. Once again if anyone has a burning question pertaining to certain diseases or their control, please feel free to give me a call (608-845-2435). If I don't know the answer, I am sure that I will be able to find someone does. Keep an eye out for future sequel as you know the fungicide and biological control market is forever changing.

Note: I would like to thank Steve Kammerer of Zeneca and Wayne Wells of Novartis for providing me with information to write this article.

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