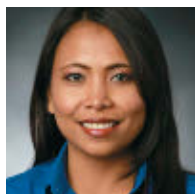


From Research to Reality

In the last several years, golf course superintendents have struggled more and more with wise use of water, unpredictable weather patterns and disease control. These issues have shed more light on the emergence of technology that can deliver plant health to turfgrass and mitigate these issues.



BY
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So when *Golfdom* approached BASF with the idea of a series on plant health that was to be based in research, with input from leading superintendents as well as turf pathologists from around the United States, we signed on immediately.

At BASF, we've been studying plant health benefits for more than 10 years. The beginnings of this were in the early 2000s, when BASF launched several fungicides into the crop market that were based on its proprietary active ingredient pyraclostrobin.

Like many products developed, you don't often see their true potential until they're adopted by the marketplace. As they were used, growers noticed additional benefits to using these fungicides for disease control, and BASF researched and developed these plant health benefits.



Growers using these fungicides reported higher yields in many crops, such as wheat, corn and soybeans. Corn stalks were stronger, leading to more efficient harvests. Crops were also better able to tolerate stresses such as heat, drought and cold than those that weren't treated with a fungicide.

Further research by BASF indicated that plant health effects delivered by the pyraclostrobin-based fungicides included increased plant efficiency via more efficient photosynthesis and better use of nitrogen. This research also uncovered evidence of increased plant tolerance to stress through a decrease in ethylene production and an increase in antioxidant activity.

So on the crop side, the plant health evidence was, well, evident. The next step fell to BASF Professional Turf & Ornamentals in determining whether its pyraclostrobin-based products could deliver improved plant health in turf and provide additional management assistance to superintendents and other turf professionals.

A naïve researcher might say, "Well that's easy. Aren't superintendents like farmers that grow grass instead of row crops?" Of course, we know that's untrue. After all, the idea isn't to increase the turf yield. We don't want superintendents and their crews to have more grass to cut. But that other benefit our research uncovered, that of stress toler-

ance? If we could show this is also true for turf, we might have something there.

So that has been the focus of our research in turf in addition to better disease control. Can BASF products deliver tangible and real, not cosmetic and imagined, plant health benefits to superintendents? Lack of water, unusual weather, aerification recovery times, recovery from tournament conditions — it all matters to them.

BASF has been looking at various stresses on turf and working with superintendents, turf pathologists and physiologists in the field and with our experts in the lab. And I'm pleased to report this research points to evidence of improved plant health in turf when treated with pyraclostrobin-based fungicides.

The turf is less stressed during heat and drought conditions, the aerification recovery times are reduced and root mass has increased. BASF expects to share specifics on the above points and more information later this year.

And as we edge closer to that moment, the icing on the cake of this journey now includes taking part in this series to learn what others have seen and how superintendents can benefit from proven plant health benefits on their golf courses.

I'm confident we will all learn and benefit from the discourse. ■

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