

# PT 3 Talking Herbicides

Manufacturers discuss what herbicides will be used in 20 years

**Question:** What kind of herbicides do you think superintendents will use 20 years from now?



**Kyle Miller**, Senior Technical Specialist, BASF Turf & Ornamentals • It's becoming increasingly difficult to register new active ingredients with all of the requirements and pressures imposed by the EPA and anti-pesticide groups. We will continue to see pesticides banned from certain use sites, making it more difficult for superintendents to manage their turfgrass. I expect new active ingredients over the next 20 years to be more weed-specific and less broad-spectrum. We'll also see a continuation of three- and four-way mixes to provide one product to control grasses, broadleaves and sedges.

**Owen Towne**, President, Phoenix Environmental Care • Herbicides — including 2,4-D, other phenoxies, prodiamine, dithiopyr, pendimethalin, dicamba, MCPP and MCPA — that were market leaders 20 years ago are still the predominant products in use today. Twenty years from now, if superintendents are using different products, their choices will be driven by a combination of innovation in chemistry and a reduction in product availability driven by regulatory concerns.



*Editor's note: In September, October and November, Golfdom has featured a three-part question-and-answer series on herbicide technology. In each segment, representatives from the industry's vast number of chemical companies will be asked one question in regard to herbicide technology. The representatives' answers will be listed along with their photos.*

**Matt Bradley**, Herbicide Marketing Manager, Bayer Environmental Science • This is very difficult to know as there are always weed shifts over time when the same types of chemistry are used over and over. We are always striving to bring new modes of action to the market to help mitigate these types of issues, but once you have one problem solved another one shows up. This will ultimately dictate what types of products will be used in the future.



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**S. Gary Custis**, Manager of Field and Technical Services, PBI/Gordon • One big issue happening in the near future will be restrictions on volatile organic chemicals, which will change available formulations. Some materials may no longer be available if they can't be reformulated. Looking out 20 years is nearly impossible. We can only speculate on the trends, because new regulations will change the playing field. We can assume superintendents will be doing more with less.



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Actual user photos — not retouched!

## Talking Herbicides

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**Scott Cole**, Golf Market Manager, Syngenta • Though we all wish we had a crystal ball to accurately predict the future, signs seem to indicate the need for herbicides that deliver reduced risk, low environmental impact, efficient rates and predictable results will only continue. For our part, Syngenta will not only continue to develop products to meet that need, we will support industry initiatives that highlight the importance of environmental stewardship in golf, and to demonstrate that courses can enhance and be compatible with the environment.



**Mark Urbanowski**, Portfolio Marketing Leader of Turf and Ornamental, DowAgrosciences • It's possible there will be herbicide-tolerant turfgrasses. While today it seems like a stretch, there is potential. There will be application technologies in the future that we haven't even thought of yet — encapsulation technologies, better granular applications, etc.



**Adam Manwarren**, Product Manager of Turf & Ornamental, FMC Professional Solutions • More combinations of existing actives, but it's not just simply tank mixes. Anyone can do that. The innovation is re-engineering and reformulating actives to perform differently and better. One example might be a granule application that releases one active today and another active in 30, 60 or 90 days, which saves on application costs (time, equipment and labor). Plus, I think many of the herbicides we're using will be packaged in more recyclable containers or pouches that significantly reduce the amount of plastic used.

**Todd Bunnell**, Turf and Ornamental Research Manager/Golf Market Manager, SePRO • New active ingredients and modes of action will enter the turfgrass market. However, these new herbicides will likely have a more narrow spectrum of control. This will lead to more combinations of active ingredients and modes of action to broaden the weed spectrum.

**Doug Houseworth**, Technical Service Manager, Arysta LifeScience North America • Herbicides of the future will most likely be combinations that work post-emergence and pre-emergence that can be applied at any stage of weed growth and be tailored to the geographical region of use.

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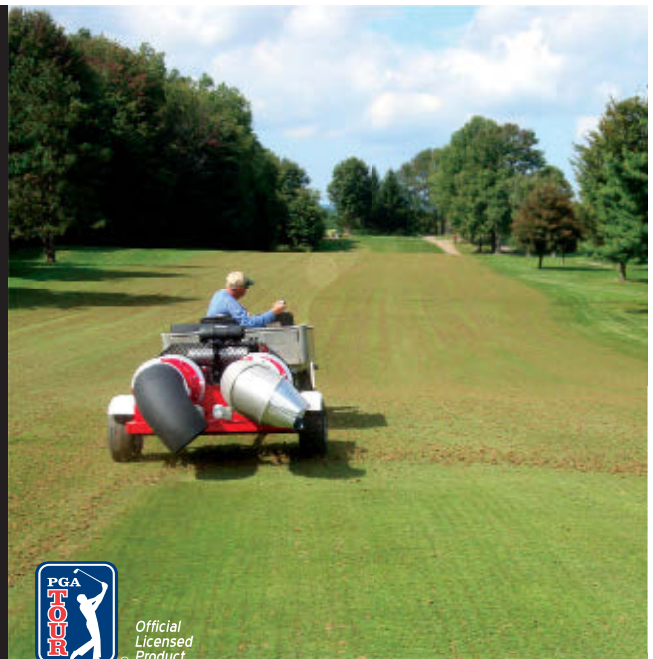
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**Russ Mitchell**, Product and Marketing Director, Quali-Pro •



In 20 years, most of the same products used today will still be used. There will be additions and combinations and progress is ever moving forward. But if you look at the last 20 years, new products come and some old products go but the majority of the products continue in the mix. That's because they're efficacious and safe when used properly. Even when new chemistries are added in combinations to increase activity or speed, the standard products we've used for years continue to be the backbone of the herbicide market.

**Nancy Schwartz**, Marketing Manager of Turf and Ornamentals, DuPont Professional Products •



I think that [superintendents] will continue to choose products that meet their high standards of performance but also meet the challenge of being kind to the environment. The industry is making great strides in finding this balance with its current R&D efforts, and I can only imagine the value that chemistries will deliver 20 years from now.



**Jason Fausey**, Regional Field Development Manager, Valent Professional Products •

I envision a mix of newer products with some of the traditional chemistry that has been used the last 60 years in the turf industry to control weeds. Newer products tend to be very selective and may have the ability to control a targeted weed or two, whereas the older products, especially when applied in combinations, tend to provide control for an array of weeds. ■

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