

Don't Guess When Making Spring Insect Treatments



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Neonicotinoids became popular with lawn care pros in the 1990s with the release of imidacloprid (Merit). In the following decade, other products from the same class of chemistry also became available for plant-damaging insect control. They included thiamethoxam (Meridian) and clothianidin (Arena and combo product Aloft), among others. Then in 2008, chlorantraniliprole (Acelepryn) an anthranilic diamide and an even newer chemistry entered the market. Like the neonics, the diamides demonstrate excellent activity against a broad range of destructive insects.

All of these products have been available to the green industry for a decade or more, yet many of us still have questions about which products are the best to use on clients' properties and also when to use them.

In other words, don't assume each of the aforementioned products exhibits the same performance against the many different insect pests that damage lawns or that they offer the same residual performance, shared David Shetlar, professor emeritus of entomology at The Ohio State University, at this past December's Ohio Turfgrass Conference.

All of these insecticides vary in terms of UV stability, water solubility, rate of uptake by plants, their host range of susceptible insects, including the longevity of their activity against pests, grubs being a primary concern for many of you.

Which product you choose to use will largely depend on what you see on lawns in terms of insect pest damage in spring, as well as where you expect grub damage to appear caused by feeding larvae later in the season, said Shetlar.

Keep in mind that the mere presence of pests, especially in the spring when turfgrass is rapidly growing, often does not warrant a treatment. However, when the damage is severe enough to take action, make sure you correctly

identify the target pest before taking action.

Sometimes severe pest grub outbreaks can confidently be predicted on the same mature lawns from season to season, especially irrigated lawns. In these cases, a preventive treatment may be prudent. New lawns, those with little organic matter and thatch, generally don't attract egg-laying adult beetles, said Shetlar.

Prior to the start of the season, Shetlar cautioned his Ohio audience to calibrate their application equipment, both sprayers and spreaders. Also, for bagged products, don't assume each batch you get will have the same consistency or the same size granules.

"We have really gotten spoiled with some of our newer insecticides," said Shetlar. "When the neonicotinoids came out, we were seeing two to three months of effective residuals for white grubs and billbugs. Yet on the other hand, when we were going for surface insects, we would often see those neonicotinoids having two to three weeks residual activity."

In other words, timing is key in turf insect control. While each of the neonics on the market does a great job of controlling grubs, each differs in terms of residual activity. The availability of diamides to lawn pros changed this timing equation.

"Acelepryn has really spoiled us," continued Shetlar. He told the Ohio applicators that applying the product in April controls billbugs, caterpillars and still preventatively targets white grubs arriving in July and August. However, chlorantraniliprol doesn't work as well on scale insects, chinch bugs and other sucking insects.

Something to keep in mind when making applications for grub control, regardless of product, is thatch, cautioned Shetlar. Too much thatch (a half inch or more) traps insecticides and prevents them from reaching the soil/thatch interface where these pests feed. "You won't get control, no matter how much you water," he said.

Another variable, shared Shetlar, is one he observed while working for ChemLawn at the beginning of his professional career. Responding to complaints of treatment failures, he saw that some technicians were varying the speeds of their applications, which affected the amount available to pests. In some cases, for example, technicians were rushing late in the afternoon to meet their quotas.

But perhaps the most valuable information Shetlar shared is also the most obvious. Take advantage of your state extension service. Personnel there monitor what's going on in terms of plant pests and diseases, including using up-to-date information on product and treatment best practices.