

Post-Emerge Crabgrass and Goosegrass Control: Practical IPM

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STRIVING FOR excellent quality golf turf during times of high environmental concerns presents an interesting challenge for today's turf manager. How does one use less chemicals and *still* maintain the quality, pest-free turf the golfers want, expect, or demand?

To answer the question, consider an old idea in the context of today's needs and modern technology; that is, the post-emerge control of crabgrass and goosegrass.

By way of background, many of today's golf course superintendents became educated, trained, and experienced in growing grass during the era when pre-emerge herbicides for crabgrass and goosegrass control were commonly used, especially in the crabgrass and goosegrass zones of this country.

There was choice upon choice of materials to use to control the "curse" of the crabgrass.

It is not surprising that of all the weed problems on golf courses, golfers almost universally recognize weeds like *Poa annua* (especially when it's seeding), dandelions, crabgrass, and goosegrass. No doubt most golfers are exposed to these weeds through experience with their own home lawns.

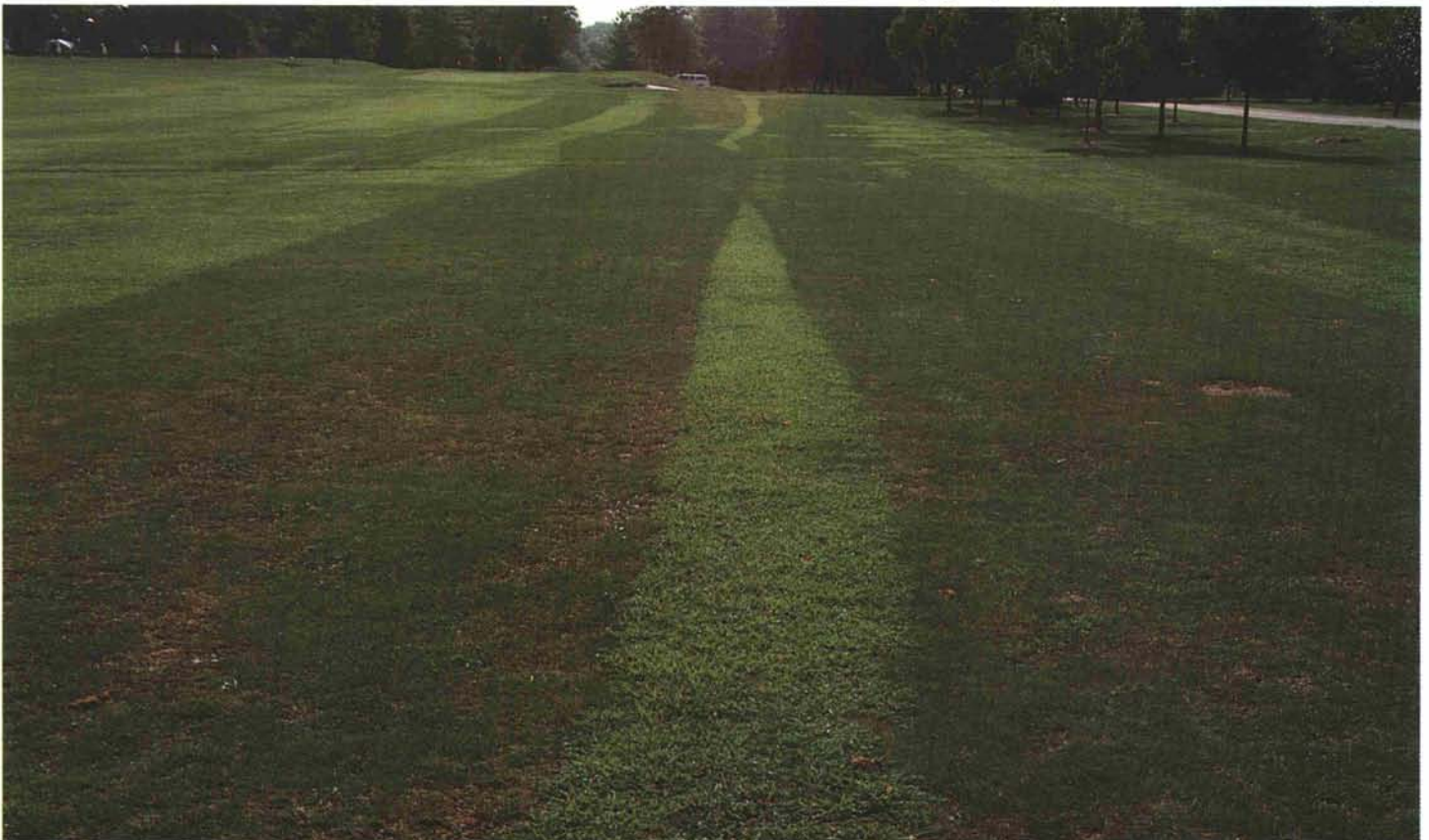
Golfers do not like weeds, and neither do golf course superintendents, particularly when their job performance as turf managers is sometimes gauged by their ability to grow weed-free stands of grass. Golf course superintendents have at their disposal several relatively inexpensive, reliable, and effective pre-emerge herbicides. In the crabgrass

zones of the country, pre-emerge products have been and continue to be routinely applied every spring on nearly all greens, tees, and fairways, and on many acres of rough, in order to control a weed problem before it ever develops.

In some ways, it is almost a perfect program: treat everything so that complaints and problems with crabgrass never are received because these weeds never develop. To many, it's worth the money both in terms of the cost of the products themselves and in reduced aggravation for the golfers and the superintendent.

As with most aspects of turfgrass management, however, there are no panaceas. To some extent, most pre-emerge herbicides produce some root-stunting effects. It is

Post-emerge sprays work! A misapplication with Acclaim on a perennial ryegrass fairway resulted in an infestation of crabgrass.



ironic that golf course superintendents work hard to develop deep root systems and then apply a pre-emerge product which either damages the roots or suppresses their development. This seems like an agronomic contradiction.

Further, the various pre-emerge materials have varying lengths of residual presence in the soil. Pre-emerge herbicides control weeds by controlling germination of seeds, but most of these materials do not distinguish between germinating weed seeds (the target) and the germinating grass seeds which may be overseeded into the turf during the fall.

It is a concern, then, that a pre-emerge application in the spring can affect overseeding results in late summer or fall. Nevertheless, a properly timed application may allow for good weed control without affecting fall renovation work. When should these materials be applied during the spring? Not too early — to allow turfgrass roots to develop beforehand. Not too late — so as not to miss the early germinating crabgrass. Not too early, or else herbicide residual activity may be lost and allow a weed-grass breakthrough at the end of summer. Not too late — the residual can carry over into the fall renovation period, jeopardizing seed germination. And let's face it, there's nothing much worse than losing turf during the summer and then not being able to establish a new stand of turf during the fall because of an earlier pre-emerge application.

How about splitting the applications? Manipulating rates? See the point? It is a balancing act. Often, it is a choice of the least of several evils.

While pre-emerge materials are convenient, they do present several real limitations and problems. There are no panaceas, but the fact is that when pre-emerges are used, generally there is little or no crabgrass. An acceptable situation? Only you can answer this question.

An Alternative

Many of today's turf managers cannot remember the days before pre-emerge herbicides were available to our industry. Yes, grass was grown, successfully grown, without the use of effective pre-emerge crabgrass killers we have today.

How was this done? It really was an early form of IPM; using management techniques and the post-emerge materials which were available. Good management practices produced good grass density. The old adage "the best weed control is a thick turf" is as true today as it was decades ago when it was first spoken. This is particularly true as it pertains to crabgrass and goosegrass control. Golfers should follow this same advice for

their home lawns. Raising the cutting height results in less crabgrass.

Cut it long and keep it adequately watered and fertilized for good density. Then, apply a post-emerge product if weeds still develop. This is how crabgrass and goosegrass were managed before the pre-emerge era. However, this program was not a panacea either! Golfers then, as now, did not like long grass.

Most of the post-emerge chemicals available at that time were harsh, leaf-burn types of products. DSMA, AMA, and others all were commonly used post-emerge herbicides. Several are still in use today, particularly on bermudagrass, which is more tolerant of these materials than are cool-season grasses. These products were harsh, and they often required repeat applications (especially on cool-season grasses) in order to kill the weeds without harming the turf. There were no soil residuals, though, and you could always spot-treat.

Fortunately, today there are available new post-emerge crabgrass control herbicides that are especially useful for turf managers growing cool-season grasses in the Transition Zone. Turf managers responsible for growing bermudagrass have had some excellent post-emerge products to use, but not until recently have safe, effective materials been available for use on cool-season grasses. The first of this new group of materials is Acclaim, and others are in the works.

Thus, the turf manager growing cool-season grasses finally has a choice of two options when it comes to controlling crabgrass and goosegrasses. He or she can routinely apply pre-emerge herbicides to many areas of turf each year or, using a combination of good management practices

to increase grass density and suppress crabgrass germination, post-emerge herbicides can be applied on an as-needed basis to keep grassy weeds under control.

Post-emerge crabgrass control is a practical approach to IPM. It may not be practical on all areas, but new products are allowing us to resurrect an old idea: post-emerge control of grassy weed problems. You will treat only the known problem areas, leaving the rest alone. There are no negative root effects; you can seed anytime you want; less time, labor, and money are spent; much less area is treated with chemicals. All are beneficial side-effects of a post-emerge program.

Give this post-emerge approach a try. Take one fairway, or try it on a few tees or a green. Do not apply a pre-emerge. See what happens. Tell your boss. Communicate what you are trying to do to your supervisor. You might be surprised; maybe, just maybe, crabgrass and goosegrass will be less of a problem than you expected. You'll never know until you try. If some crabgrass develops, control it with a post-emerge program. Heck, you could even hand-weed! This old technique is still effective. IPM, using a knife.

If weed pressure is just too great or if you do not have the time, labor, or quality sprayer necessary to accurately apply these new-generation materials, then the use of pre-emerge herbicides may still be the best program for you. You'll never know until you try.

Post-emerge control of crabgrass and goosegrass; it's an old idea that has been brought back to life with the development of new products. Give it a try.

Divotting defeats most pre-emergent weed control, necessitating post-emerge control.

