

## A Superintendent's Hats

I was honored to have been asked to write this article about the role of a superintendent in the reconstruction of an existing course or the construction of a new course. I started to think about these responsibilities and pondered the "hats" that a superintendent must wear during the course of a project. After getting to my third page of notes, I realized how relieved I was to have my job and not the job of a superintendent!! Without a doubt, the Club Manger/Grounds & Greens Chairman/Director of Golf, Agronomist, Golf Course Architect, etc., etc., make many decisions that impact the character and playability of the golf course. However, it all begins and ends with the superintendent who serves as the hub of this wheel. To be better prepared to accept this responsibility, the superintendent must learn to wear many hats effectively.

At this point, major renovations need to occur to restore the golf course to its once elite status. The story always seems to begin with the question, "Why has our course fallen from the ranks of the elite?" or "Why are our numbers paling in comparison to the new course down the street?" Members and board members want answers and results immediately. The superintendent now has to wear his 1st hat – the "Problem Solver." The superintendent will be responsible for effectively answering these questions by presenting solutions such as hiring outside consultants who will analyze the problems of the particular golf course.

Convincing the appropriate boards or committees that band-aids no longer work on their course is probably one of the most important tasks a superintendent attempts. At this point, major renovations need to occur to restore the golf course to its once elite status. This becomes the reason for hat #2, "Marketer," to be worn. The superintendent starts to gather support from the local USGA rep, agronomist, tree expert, or even a golf course architect, to validate the proposed project with the board or committee, as well as assure the success of the project.

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"It is most important to assemble the proper team to deliver the club's goals. The team members need to be cohesive and give and take toward the common good of the project"

> Dan Dinelli, CGCS North Shore Country Club

So now we are convinced that one of the consultants you are about to hire is a golf course architect (at least I hope!). There is no question that the superintendent should be a part of the selection committee. The cohesiveness of the relationship between the architect and the superintendent will be one of the key elements in the success of the project. Hat #3, "Design Associate," allows the superintendent to explain the intimate details of the golf course, thus providing invaluable insight for the golf course architect and enabling him to develop a successful design. The superintendent should know how each change being proposed by the golf course architect is going to affect not only maintenance, but the playability of the course. The superintendent, who is most accessible to members and golfers, will need to be able to answer their questions. It is imperative that both members and golfers understand the superintendent is not the golf course architect! The architect should be able to validate everything that is proposed with the support and cooperation of the superintendent.

Now that the design is finished and approved by the superintendent and the board or committee, it is time to set schedules, establish specifications, and bid the project to the appropriate contractors. These are jobs for the "Project Coordinator," hat #4. Questions about how many phases it will take to complete the goals set forth for the project and whether or not the course should remain open or closed during construction will be posed to the superintendent. Since the superintendent holds the most experience with growing grass and preparing the course for play, the architect and the owner must rely on any proposed schedules the superintendent may provide. The superintendent must



Let the construction begin as the superintendent acts as the representative of the owner overseeing what will eventually become his or hers to manage.

be sure there is enough growing time for the turfgrass to mature based on when the club or course needs to be fully operational. The superintendent, backed by the consultants, needs to stand firm on what he or she believes is in the best interest of the golf course, which is to open as healthy and dense a stand of turf as possible.

The architect should undoubtedly involve the superintendent in writing the specifications for construction, hat #5, "Research Assistant." It is the job of both the architect and the superintendent to stay on top of every changing technology as it relates to turfgrass, fertilizers, and construction materials. Researching the products to be used on the project and selecting the ones that will not only make the course more efficient to maintain, but also give the clientele the best playing surface, is arguably the most important task at hand.

New course construction is obviously different in that growing media do not have to be simulated or turfgrasses matched for color or texture. Greens and tees are the most viewed and scrutinized features of a golf course, so selections in construction material and turf are vital.

"Saving money in the construction or renovation of a golf course should never be discussed when it comes to materials. Cutting corners when it pertains to sands, mixes or even seed varieties is like writing yourself a death sentence. The USGA has put many years of research and testing into guidelines for greens and bunkers that work. I don't see why anyone would not use them."

Matt Kregel, Superintendent of the Club at Strawberry Creek (Matt was also the assistant superintendent during the renovation of The Ivanhoe Club).

Consistency with construction materials becomes a much bigger issue when a renovation project is phased in over several years. Sand veins change at sand and gravel pits and sods may vary due to availability of certain seed varieties. Phased projects could mean a different contractor with each phase, which means various methods of installa-The superintendent and tion. architect both have to monitor these potential variables with contractors and/or materials because consistency is a major part of being able to manage the project after the construction has finished.

As construction begins on the project, hat #6, "Project Manager," is introduced. The superintendent is the conduit between the contractor and the architect, the architect and the owner, and the contractor and the owner. The superintendent will be asked to represent the owner in regard to change orders, pay applications, and overall quality control. The architect will rely on the superintendent more than the contractor in scheduling site visits for approving subgrades for topsoil, staking grass lines, etc. We all know the contractor does not want the architect breathing down his neck every step of the way! The communication at this time during the project is crucial because

neither the architect, superintendent, nor contractor want to be responsible for delaying a project in crunch time.

The 7th hat, "Teacher" really must be worn at all times. The superintendent and the consultants must be sure all members or golfers are educated continually during the course of the project. It is imperative that all members and golfers are kept updated with before and after pictures made available to them in the clubhouse. These will serve to inform and excite the golfers. Put them on the bulletin board to show the planning that took place, the processes that were undertaken, and the finished product. This may eliminate questions and undue concerns the golfers may have.

"The architect and the contractor get to leave after this project is over, but I have to stay and deal with all the screw-ups!"

A superintendent on the edge

It is true that everything planned, specified, purchased, installed, and built will be the responsibility of the superintendent. In most cases, the superintendent will be asked to maintain these new conditions better than the old ones without expending more energy or money. Through experimentation with what may be new maintenance practices for the staff, this goal may be achieved. There is no question that everyone who plays the golf course will have increased expectations after this project is complete.

The most important thing to remember about any project that a superintendent undertakes is to educate oneself, the board or committee, and the golfers. The superintendent cannot assume this responsibility alone; it must be shared by the entire project team. My advice for all superintendents is to wear the appropriate hat at the appropriate time and be the hero at the end of the project. The superintendent and the consultants must be sure all members or golfers are educated continually during the course of the project.

Everybody wins when the finished product in a successful renovation project is completed on time, within budget, is more playable, and easier to maintain - all thanks to the golf course superintendent.





# Plant Growth Regulators, My Favorite Topic

Spring is here, and turf manager's thoughts turn to – well, what else, grass. Particularly, at this time of year, many turf managers are contemplating management programs. Plant growth regulators (PGRs) have gone from a novel concept to an integral part of a turf management program. In this article, I'd like continue to share some of what we learned about the use of these important tools.

**Fine Tuning PGR Programs** 

I am asked many questions about PGR usage by golf turf managers. Most of them, I can't answer. Many times I have an idea of what the answer should be, but when you do research, you expect to be able to answer the question from your work. One question I am frequently asked is about tankmixing PGRs. Does this practice make sense, and what would be the advantages? Most every tank-mix question relates to the mixing of Primo Maxx with either Trimmit or Cutless. Much of the rationale for tank mixing is addressed in research that we conducted using funding from the Illinois Turfgrass Foundation (ITF), which many MAGCS members support. This was some of the most practical research we conducted, and as ITF members would want, I tried to get this research funded by other organizations as well. It still rankles me that the GCSAA refused to fund our PGR research! Now that I've gotten that out of my system, what was the research that helps explain tank mixing?

Jeff Beasley, now an assistant professor at Louisiana State University, studied the impact of temperature on PGR degradation. He found that both PGRs studied — Primo and Trimmit —break down more rapidly within turfgrass plants when temperatures are warmer (full details can be found in a summer 2007 issue of *Golf Course Management*). For example, the half-life of Primo in bentgrass in the summer is only about 3 days. That means that in less than a week, over 75% of the Primo absorbed by the plant is gone! Primo is a great growth regulator with many positive impacts on turfgrass quality, but the period of regulation in the summer is very short, and many superintendents have seen this through experience. In the spring, the half-life of Primo in plants is about twice as long as in the summer, and, consequently, growth regulation in the spring from Primo lasts longer with better results.

The idea of tank mixing comes from the reduced activity of Primo in the summer. Why not mix Primo with a PGR that provides a longer period of growth regulation in the summer than Primo, thus reducing the need to apply the PGRs as often as weekly? That is precisely why tank mixing makes sense. But there is an additional reason why tank-mixing Primo and either Cutless or Trimmit can be valuable. Both Trimmit and Cutless are absorbed by the root system of the plants, whereas Primo is absorbed by the foliage. This difference often means that regulation will kick in more quickly for Primo than for Trimmit or Cutless. Why is this? Since Trimmit and Cutless are root absorbed, an application has to be watered into the soil, the PGRs must enter the soil solution, and then be absorbed through the roots into the plant. This takes time, and the process continues over several days. That is, root absorbed materials tend to build their concentration in the plant over a period of several days because uptake occurs as long as transpiration is occurring and the PGR remains in the soil. Our research showed that the concentration of Trimmit in (continued on page 16)

But there is an additional reason why tank-mixing Primo and either Cutless or Trimmit can be valuable. Both Trimmit and Cutless are absorbed by the root system of the plants, whereas Primo is absorbed by the foliage. bentgrass plants continued to increase for several days following application. Conversely, Primo concentrations were highest immediately following application.

Thus, the value of tank mixing Primo with either Cutless or Trimmit is two-fold. The regulation from Primo will kick in more quickly than the other products giving a more rapid reduction in growth than from Cutless or Trimmit alone, but by adding either Cutless or Trimmit, the period of regulation will be lengthened. Each tank mix component complements the other.

### Cutless vs. Trimmit

Another question I am frequently asked is about the differences between Trimmit and Cutless. These PGRs have the same site of action and similar use characteristics, how are they different? In many respects, I don't see a lot of differences. However, when comparing these products, users must understand that Trimmit is twice as active as Cutless on an active ingredient basis. That is, applying a 0.25 lb ai/A of Trimmit will give about the same regulation as a 0.5 lb ai/A application of Cutless. By a quirk of formulations, when rates of these products are expressed in ounces of product per acre, not pounds of active ingredient per acre, they give essentially equivalent growth regulation. In other words, when you apply 16 oz of Trimmit (2S formulation)/A (or 0.25 lbs ai/A) you should expect the same growth regulation as when you apply 16 oz of Cutless (50 WP formulation)/A (or 0.5 lbs ai/A). I'm sure there are subtle differences between these products, for example, both are weak fungicides but Trimmit provides slightly more dollar spot suppression than does Cutless (Calhoun, R. M.S. Thesis, Michigan State University). Both PGRs tend to increase the leaf blade width of treated grasses, particularly bentgrass, and this is an undesirable side effect of these products.

But in terms of growth regulation, these two products are very similar. Both regulate creeping bentgrass to about the same degree when applied at equal product rates (Figure 1). While I want to stress that this is only one year of data, we saw that in 2005 Cutless and Trimmit provided equal growth regulation of creeping bentgrass. Trimmit, however, provided more growth suppression of annual bluegrass than did Cutless at the two highest rates tested, 16 and 24 oz product/A (0.25 and 0.375 lbs ai/A of Trimmit and 0.5 and 0.75 lbs ai/A of Cutless). I would conclude from this data that both products are equally effective on bentgrass, but in a bentgrass conversion program, Trimmit may give better conversion when rates are increased above 8 oz product/A.

Regardless of which PGR you choose, the use of PGRs has become a fairly standard practice in the golf course industry. Regulation can provide other benefits besides a reduction in mowing. Information on other aspects of PGR use will be covered in another article.

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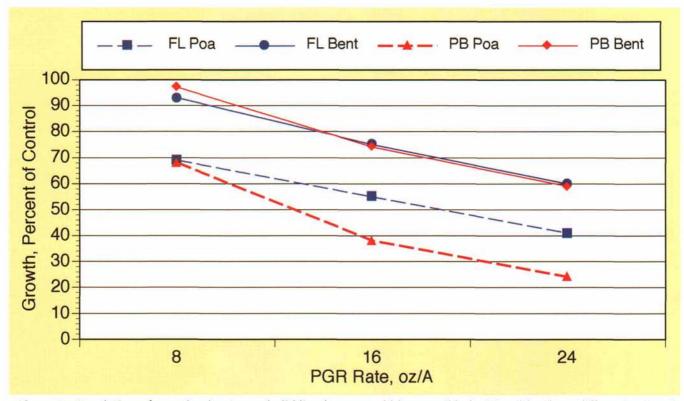
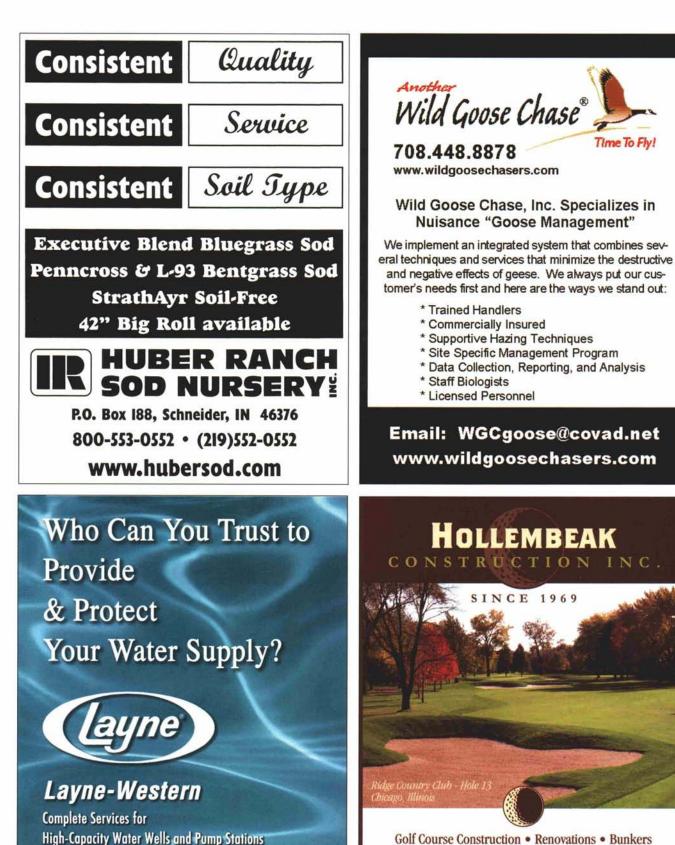


Figure 1. Regulation of creeping bentgrass (solid lines) or annual bluegrass (dashed lines) by three different rates of Cutless (blue lines) or Trimmit (red lines). Data are presented as clipping production as a percent of the control, i.e. untreated, turf. PGR applications were made every three weeks from May until September of 2005. These points are the average of twice-weekly clipping collections over the entire period of growth regulation.



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### A Few Thoughts as Summer Approaches: Remember the Basics

On a cool spring day late last March we were in the middle of cleaning up more than 50 trees that had been cut down throughout the winter. Two operators had been using four different chainsaws for hours on end without issue. Suddenly one came in with an injury. Not the operator, but one of the newer midsize saws had been attacked (pictures show damage. Was not able to get shot of actual saw under tree trunk). Naturally, safety is enforced at all times. The upright section of this limb was supposed to fall the other way. Accidents happen. Fortunately with current technology in plastics and the design of this particular saw it was an easy repair and not too costly.



#### Temperature swings can cause more than goose bumps

During the sudden return to winter back in early April some other strange things happened. You don't realize just how quickly weather can change until you try and start up machines that were parked outside in the morning (after being in a heated garage overnight). After work, it was time to restart five Toro tri-plex mowers and park them back in the shop for the night. The temperature had dropped over 25 degrees from that morning. I had one older machine blow the main hydro pump seal upon start up. It gave no indication of problems prior to that moment. Another machine suddenly developed a lift cylinder seal leak. A third machine showed symptoms of a weak battery but ended up to be high starter draw. All of these glitches as a result of extreme cold temps. Better to have happened then and not now.

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### Another basic but important tip

Before working on any spray rig make whatever time it takes to clean the entire machine thoroughly before hand. I personally am very sensitive to any chemical touching my skin. Nothing is so important that protection and a thorough cleaning of the rig should wait.



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#### A Few Thoughts as Summer Approaches . . . (continued from page 19)

### Mid-life eye crisis

Eye protection is at the top of the hit-list for technicians. I usually end up wearing my safety glasses throughout the day. I don't wear safety goggles as I have prescription glasses for nearsighted vision. I also now find the need for bifocal lenses when working under a machine checking cutting units and other items when the machine is in the lift. I have had a pair of prescription safety eyeglasses for many years and wear them daily. Last year I found myself tilting my eyes upwards above the eyeglass frame to see close objects. This left my eyes naked to debris and fluids.



I'm wearing my old specs on the left and and having to peer over the tops of them becuase of my farsightedness. My new biofocals on the right allow me to see what I'm doing through the glass.

Did you know safety glasses are available in prescription? Did you also know that bifocal vision and what is called a double D lens are available in conjunction with your prescription?



I was so exited to learn that these are available and have been for quite some time. It took me no time at all to become used to them. Without vision coverage the overthe-counter price is around \$450. Eyesight is priceless. I am fortunate to have some benefits that covered most of the cost. I brought the glasses to our last TETA board meeting. As the board's average age is creeping up toward the vicinity of needing some extra help with eyesight, this was a good topic.



If you have any experiences through the year, please jot them down and email them to me. Everyone out there has tips that can help some of us in one or more ways.

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