



Late Season Problems

By **Pat Norton**, Golf Course Superintendent, Nettle Creek Country Club

Every week of every golf season for about twenty years now...I feel like I've been walking the line. I almost always feel like a hiker on the bluffs...one small misstep and it's over the edge I go...

The everyday, every week balance that man and Mother Nature work out on any golf course permits superintendents to walk the line without too often falling off and getting impaled or crushed on the rocks below. The work of any golf superintendent is always on display...for either private or public viewing. There are always those times when any golf course will look especially pristine...and other, more adversarial times when things look a little ragged.

Golfers especially during this very mild year...and every year...heap on the compliments when the golf course looks great. They all tend to say pretty much the same thing...and guys like me get a little jaded after awhile. We take for granted our ability to groom, manicure, and ultimately improve any golf course at which we are employed.

In my case...out here in Corn Country U.S.A....I've caused and experienced two late season problems that I am very reluctant to write about publicly. But, in the interest of needing a topic and of taking my medicine...I cleanse myself here...and hope that the advice threading through this essay will help other superintendents to avoid problems, and the doubt and anguish that they cause.

As we all know, the summer of 2004 was extremely mild all over the Midwest. Looking back on it now, it's ironic that such an idyllic summer should turn into such a bitter October. Looking back on it...I can't believe that I let it all develop into such a negative situation. And, looking back on it...I fully realize that these problems as they developed could well have led to my dismissal from my position here of ten years.

One of my all-time boneheaded decisions was to use an alternative to Merit for white grub control across our thirty-four acres of Penncross greens, tees, and fairways. A big mistake...in review.

Back in February or March, I was finalizing my fertilizer and chemical buying decisions and beginning to place them with our preferred vendors. When comparing insecticides, I found that my preferred compound would result in about a \$300 savings as compared to Merit, which I had used many times very successfully.

My rate calculation was incorrect, however, in that my turf and ornamental reference book was of 1998

vintage, and contained a labeled rate 25% below the new label rate. So, I ordered this insecticide based on the old label rate and thought that I made a good decision and saved \$300. How shortsighted! We then compounded the problem by applying this insecticide in late May/early June instead of waiting until early July...which will, by the way, be my application target for next year.

When we had grub breakthrough in late August or early September, it slowly became apparent that 2004 was going to be a bumper crop year for masked chafer grubs at Nettle Creek and lots of other south ChicagoLand and central Illinois golf courses.

Our follow up application of Dylox(seven cases) only cost us \$3,500...which compared to that paltry \$300 initial savings makes me feel like an idiot. Ah, the

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blessings of hindsight! Fortunately, mistake #1 was communicated to all other management and ownership types and everybody understood, accepted, and forgave the error.

Early in September I finally decided to do something about those pesky dandelions in our bentgrass fairways. Not that many of them, you see, but enough that an application of herbicide on a spot treatment basis seemed the answer. Not a bad strategy...especially when I usually feel that a broadcast spray over our entire 27 acres of fairway turf is a waste of material and somewhat unnecessary. In this situation, however, I tried a new herbicide, and most importantly, let Manuel out the door with a common hose nozzle due to an inoperable Lesco hand gun. Figure in the fact that hand spraying on warm September days can be a real chore...and the recipe for disaster is right there.

I do remember vividly seeing Manuel juicing it out there really strongly as I watched from on top of the hill. I also remember being very busy at that moment and moving on with my chores that morning instead of checking with him more closely. After all, he'd hand sprayed many times with many different chemicals...and never a problem.

This herbicide...combined with a too generous application rate through that general duty hose gun...and an applicator who wasn't reminded that a little bit is all that you need...gave us a textbook case of phytotoxicity over sixteen holes of this golf course! It is as ugly as it is incredible! I still ask myself how it happened!

After it became apparent that this herbicide burn was becoming a problem, I informed ownership verbally that we had a problem. I still wasn't overly concerned...as I know that turfgrass is usually pretty tough stuff and that the affected areas would begin to recover with time. I also did not take ownership out on the course, however, and let him see firsthand the extent of the burn problem. Huge mistake.



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Our marketing director...a good friend and confidant of our owner...played the course last Sunday, was negatively surprised, overreacted totally, and immediately informed our elderly owner that we had a HUGE problem out on the course. This was followed by a Monday AM inspection, a surprise phone call, and lots of angst since then. Dr. Randy Kane of the Chicago District Golf Association was called in...to my severe embarrassment...and confirmed that everything that I was prepared to do for recovery was indeed correct. He also dryly informed me that it's always best to keep club officials or ownership totally and completely informed when mistakes are made.

I freely admit to making these mistakes...otherwise you wouldn't be reading this and discovering that I am not perfect. A superintendent friend of mine observed that in dealing with such a variety of responsibilities daily...mistakes do happen.

What I do not appreciate is being backed into a corner by civilians that do not understand turfgrass...and transform themselves instantly from budget penny pinchers into money wasters because they want action taken now...today.



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What I also do not appreciate is the constant pressure to control costs and reduce expenses...which is understandable from a business viewpoint. On the other hand, it is impossible to continually provide the playing conditions that golfers and ownership expect with severely reduced expenditures on fertilizers and chemicals.

For example, planning a complete course protection program is quite a bit easier with \$75,000 instead of our current \$52,000. I do not appreciate the fact either, that the past is so easily forgotten...and fighting to educate and ultimately restore these lost funds is almost impossible. The perception is that somehow the superintendent is not a good businessman, not a good buyer, not a good horse trader.

The reality is that superintendents get too conditioned into cost control...which can force them into mistakes. I've been cutting corners for years now. Now I got burned...and quite literally burned my golf course.

It's also curious that after ten years of having this golf course always in very good agronomic condition...one instance, one mistake seriously strains the trust between owner and superintendent. I was even told that

I'd 'ruined my reputation as a superintendent'...which angered me totally. I won't wait for his apology...old, powerful people don't apologize very easily. That is one comment that I'll never forgive...or forget.

Part of the strain is indeed my fault...communication could have been better. But, the negative overreaction, lack of understanding, and the sudden lack of confidence and trust in me are very sobering and unsettling. I do not doubt my ability. I doubt that my relationship with the owner of this golf course can ever be quite the same.

Part of me wanted to resign in anger and protest. The more intelligent part of me says stay the course, continue on, and repair all damage. Fortunately for me, this is what our owners want me to do also.

Due to the advanced age of our owner, I have a pretty clear understanding of what will happen here within a few years. I will stay until the end...and be ready for what changes the future may bring.

In any case, I will continue to treat people with honor and respect. It is the least that they deserve. ♣

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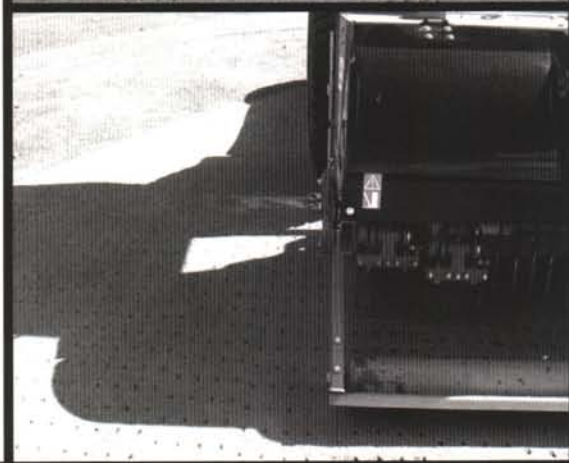
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Time to Slow Down

By Monroe S. Miller, Golf Course Superintendent, Blackhawk Country Club

December — the first month of the winter. Wasn't it just yesterday when the air was heavy with humidity, the trees loaded with large leaves and the grass as green as it could be? Now, the air is crisp and clean and the trees are dark and clear against the white snow that covers the ground in some places.

I like the old rhyme that says "Chill December brings the sleet, blazing fire and Christmas Treat." It is a pause for us, a happy and stress free (mostly) time to be spent with family and friends. If we cannot enjoy this interlude, there won't be any time to be savored.

In our town we had summer in September. It was way above normal and little rain fell. It was perfect weather for golf and gave golf courses at least a chance to catch up on rounds lost in spring and summer due to weekend rains.

October brought the first hard frost of the season, but overall there were few frosty mornings. Eastern Wisconsin was especially dry.

Reports from the Wisconsin Agricultural Statistics Service tell the soil moisture story around the state.

On the subject of weather, did you see that the Farmers' Almanac is predicting a snowy winter for the northern Plains and the Great Lakes regions? The weather formula used by the 188-year old Farmers' Almanac is a closely guarded secret. It is prepared two years in advance and is based on sunspots, the position of the planets and tidal action of the moon.

The National Weather Service questions the accuracy of forecasts made so far in advance, but as the almanac points out, it is right 80 percent of the time. It would be a pretty good way to schedule aerifying for next year!

Their forecast last winter was largely on the mark. It also forecast a wet and cool summer, which was true for much of Wisconsin.

How many noticed Blaise Winters on the sideline during the Wisconsin/Central Florida game early in the season in Camp Randall? He is a member of their coaching staff and was in Madison early in the year as a speaker at the WTA Expo. Winters is also a former Green Bay Packer.

Here's some sensational news: Dr. Steve Millett has been appointed by Southeast Missouri State University and the Missouri Winery Association to head up the new grape research station in Cape Girardeau, Missouri.

The program is funded by a 24 cents tax on every bottle of wine purchased in Missouri. Steve will serve the needs of the state's 50-plus wineries.

Steve will have a staff of 12 and together they are creating a grape research station that will be similar to the O.J. Noer Facility. They have started building diagnostic and research labs and planting five varieties of grapes.

SEMO has a Black Angus research station contiguous with the grape research facility. Eventually there will be a restaurant that serves Angus steaks and Red Hawk Red wine from the grape facility!

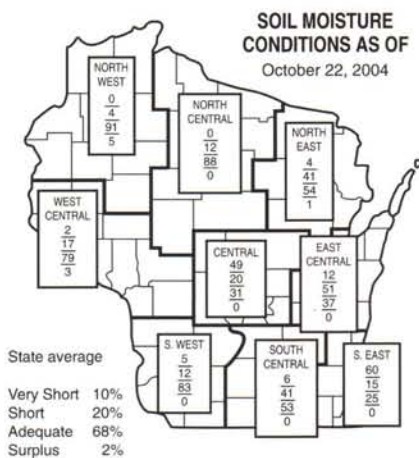
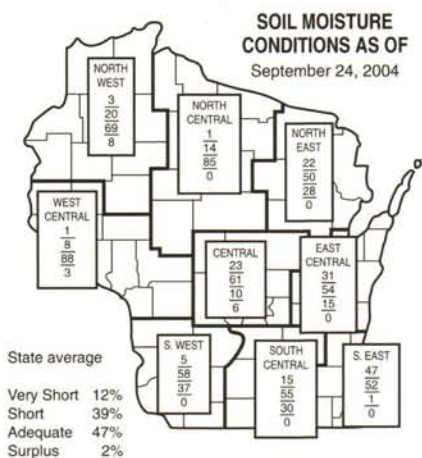
And if that wasn't spectacular enough, Debbie and Steve are going to China in the spring to pick up their adopted baby girl!

There aren't many people as bright, sincere and gracious as Steve Millett. We were lucky to have him among us for as long as we did. He earned all the good things coming his way.

October was a sad month. We lost Mike Kilpatrick and Wayne Otto. Frank Rossi reminisces about Wayne elsewhere in the *Grass Roots*.

Mike was a regular presence in the Wisconsin GCSA, attending monthly meetings, educational offerings and the annual GCSAA conference.

Mike was promoted to the position of golf course superintendent at



Moor Downs Golf Course in 1973. He was reassigned to Wanaki Golf Course in 1989 and then to Naga-Waukee Golf Course in 1999. He retired on January 2, 2004.

The Waukesha: Lake County Freeman wrote the following about Mike on October 9, 2004:

Mike Kilpatrick dedicated his entire life to serving others. Kilpatrick retired in January after working for more than 30 years on county golf courses, retiring as the superintendent at the Naga-Waukee golf course. He served with the U.S. Air Force from 1966 to 1970, and later brought his expertise and leadership to the North Lake Volunteer Fire Department. Kilpatrick served the department for 34 years, 23 of them as assistant chief.

Kilpatrick, 58, died unexpectedly Thursday, October 7, as he was at the Stone Bank Fire Department on standby when that department was dispatched to the Mission Lakes fire in Okauchee.

Bob Fleming, Kilpatrick's brother-in-law, said Kilpatrick retired from the county on January 2, and spent the intervening months with his family, gardening, and with the department. He was also an avid hunter and a member of the North Lake Nomads Snowmobile Club.

"His family and the department, those were the passions that balanced his life," Fleming said.

Kilpatrick was talking to North Lake fire Chief Terry Stapleton when he was stricken.

"He was just standing next to me, and he started to bend over," Stapleton said. "I asked him if he was all right, and he said, 'yeah.' He walked behind the truck, and three Lisbon EMTs were there to help him sit down. It wasn't even five minutes later

and he was in the ambulance to the hospital (Oconomowoc Memorial Hospital)."

Bill McBroom, a training officer with the North Lake Fire Department, said the three EMTs worked on resuscitating Kilpatrick all the way to the hospital, but he did not regain consciousness.

"Yesterday, it was just . . . everybody was just in shock," McBroom said.

Kilpatrick underwent knee surgery last November and made a surprisingly quick recovery, McBroom said. Last Friday, Kilpatrick was his usual jovial self as he guided grade school children through the fire station," he said.

"It's tough. It's very tough, Fleming said. "There were no signs of any problems. It's kind of hard to understand at this point."

McBroom said Kilpatrick was a very outgoing person, a good leader and a very good firefighter. He had a hand in training new volunteers at the department, he said.

"He was a perfect guy as assistant fire chief," Stapleton said. "He would take an order and make sure everyone else followed it. He was very strict when it came to fighting fires."

"There's not a guy in the department who could say anything bad about Mike," Stapleton continued. "Even when he was mad he was happy. He was just a lovable guy."

Kilpatrick is survived by his wife, Marge; daughters Chris and Trisha; son Charles; three grandchildren and other relatives and friends.

"He was a good guy. He was truly a nice man. Nobody ever had a bad word to say about him," Fleming said.

When I think about turfgrass research I obviously think about CALS and Soil Science or Plant Path or Horticulture or Entomology. But every once in a while we learn of discoveries from L&S that we can apply directly to our golf course programs.

From Birge Hall and the Botany Department comes the news that in the third week of October Professor Tony Bleecker was honored with the 2004 Distinguished Researcher Award from the International Plant Growth Substances Association. The award was primarily based from his discovery of the hormone mechanism responsible for everything from seed emergence from the soil to leaves separating from their branches in the fall.

Bleecker's lab studies the ripening of fruit and the effects of ethylene. They found the gene (in arabidopsis plants) with which ethylene binds to trigger the ripening process. This work opens the way to manipulate the genes of plants and fruits to delay ripening. It is the same process that causes left drop.

For an industry that has found so much use for products like Proxy and Primo, discoveries like this one at Wisconsin's land grant university will find its way into our golf course management programs.

By the time this issue of The Grass Roots hits the newsstands all across Wisconsin, irrigation systems will have been cleared and snow mold protection applied. Leaves will have been mulched and travel plans made for Thanksgiving, deer hunting, Packer games, and Badger games. These are the things we love in Wisconsin this time of year. And Christmas is coming! Soak it all in; next season will be here in the blink of an eye. ♣

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Farewell 'Ought Four

By Tom Schwab, O.J. Noer Turfgrass Research and Education Facility, University of Wisconsin-Madison

The final WGCSA outdoor event of the 2004 year was held on Tuesday, October 24th, at North Hills CC in Menomonee Falls. Our Host, Randy Dupont, provided not only a wonderful venue for the Superintendent/Guest outing, but also dialed in a beautiful autumn day. The day started with an informative presentation by Brian Vinchesi. Mr. Vinchesi, President of the Irrigation Association, provided information on educational offerings related to GCSAA and the Irrigation Association as well as water rights issues on the horizon. The two-man best ball format was highly competitive with quite a few teams within a birdie or two from the front of the pack. Prizes were presented for the top 3 finishing teams with an additional five prizes awarded for hole events. Excellent accommodations, a top notch speaker and fine dining all added up to a good time and a great value for those in attendance.

On a related subject, there are still a couple of openings available to host a Wisconsin Golf Course Superintendents monthly meeting at your facility in 2005. Please contact any executive officer or board member to express your interest. ♣



Guest speaker Brian Vinchesi, president of the Irrigation Association.

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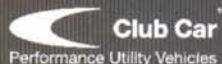
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It's Buying Time - "Brand vs. Generic"



By **Monroe S. Miller**, Golf Course Superintendent, Blackhawk Country Club

It is everywhere in our daily lives - the decision to buy a brand name product or a generic one. It is a decision we have to make at the drug store, the grocery store or the hardware store. We also face it when buying fungicides for our golf course businesses.

I personally think it is a harder decision to make than maybe some others do. Whenever I review support given to the turfgrass program here in Wisconsin, I don't see the generic brands helping at all. When I see the support given to the GCSAA, especially at the annual conference, it seems the brand name manufacturers are way out front in their support of golf course superintendents. That support comes in the form of scholarships, speaker sponsorships, and support of events we enjoy attending.

But there are other issues, too. The principal issue comes to the question as to whether generics are really the same as brand name products. Here is a summary

of what one of the manufacturers told me; it is a clear answer from that side of the issue. By the way, I have removed any product references.

Discovering a molecule worthy of becoming an active ingredient is not the result of circumstance. For every one molecule that is identified to have potential value as a fungicide, herbicide, insecticide or plant growth regulator, hundreds of thousands of molecules are screened. Companies typically discover these AI's with extensive investments in research programs. The process of testing molecules for activity, plant safety, environmental safety, and worker safety takes more than a decade. The vast majority of compounds never meet the criteria for commercial development.

Although a potential compound may have beneficial properties, it may be very difficult to synthesize or too expensive to produce commercially. Assuming a production process can be developed without losing any of



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the molecule's beneficial qualities, a formulation process must be developed to ensure the AI will perform consistently in various scenarios. The final formulation should remain stable while in storage and in tank mixes with other common products, and provide consistent performance.

Basic manufacturers receive a 20-year patent for new products. Patenting a molecule usually takes place very early in the investigative process. Nevertheless, basic manufacturers must continue investment in final product development and data supporting registration by the EPA and individual states before the product can be marketed.

From molecule discovery until the day a product is commercially available, a company will invest over \$120 million over ten to twelve years. That, of course, is well over half the life of a U.S. patent.

Manufacturers of branded products maintain the EPA registrations. The EPA recognizes that the company that develops a new product knows the most about it, and that modifications to the label will likely occur once the product is widely used.

In addition, basic manufacturers continually invest in the proper stewardship of their products, and respond to market and customer needs through improved formulations and packaging. A significant portion of sales revenue is earmarked for research and development of new molecules.

It is not unusual for a brand manufacturer to invest 10 - 15% of revenue dollars in research. At the same time, as I have noted, basic manufacturers commit significant time and resources to support the industry through partnerships with national and local associations, by providing technical support, and other services through collaboration with distributors and customers to answer questions and solve problems.

Generic products - occasionally referred to as post-patent chemistries - are alternatives to branded products, but are not identical to branded products. When patents expire, data on the original molecule becomes available for use. However, the "recipe" for synthesizing the molecule and formulating the product may be protected by the basic manufacturer as a trade secret. Generic producers typically must purchase or develop a manufacturing process. Even though a generic product may contain the same amount of active ingredient as a branded product, field research demonstrates that the generic product may not perform as predictably or consistently as the original product.

Unlike the basic manufacturer, most generic suppliers have not made the investment in extensive research and development programs, nor do they maintain investment in improving the product through re-registration, updated formulation, or by offering other added-value services and support.

The generic vs. brand story is much more complex

than what is offered here and deserves further investigation from end-users like you and me. It is important to realize, however, that when purchasing a proven brand, you receive a quality product, dedicated resources to product stewardship and new product discovery and development, the technical, legal and environmental support of the basic manufacturer, and most importantly a long-term investment in and commitment to the future of our industry. ♣



golf industry show

The inaugural **Golf Industry Show**, which combines the Golf Course Superintendents Association of America and the National Golf Course Owners Association trade shows, will be conducted **Feb. 10-12, 2005**, at the **Orange County Convention Center in Orlando, Fla.**, and will represent the full spectrum of golf facility management and golf business. The Golf Course Builders Association of America and the American Society of Golf Course Architects will also join the event. The Club Managers Association of America will partner beginning in 2007.

While the trade shows of the participating organizations will be combined, each will retain autonomous education conferences that will run concurrently with the Golf Industry Show. The objective is to present an industry trade show that represents significant aspects of a golf operation - from ownership, feasibility and design, construction and operations.

The show will be a progressive event that features unparalleled networking opportunities and hands-on access to resources for professional members of the golf industry. In addition, the trade show will focus on compelling golf course and facility management solutions for all stakeholders through a unique floor design in terms of physical arrangement and content.

The 2005 floor layout will be highlighted by seven solution centers providing the latest industry technology, communication and education. Each solution center will provide unparalleled networking opportunities, educational sessions, demonstrations, access to experts in that area, and exhibits related to the particular solution center. Among other things, attendees will get to see the building of an actual golf course green, a driving range, putting green and chipping surface, an electric vehicle test track, and a full-scale pump station demonstration.

For more information about the inaugural Golf Industry show, Feb. 10-12, 2005, in Orlando, visit www.golfindustryshow.com.

