

seated in a rocking chair in the living room of his Nakoma neighborhood home and says he's still dumbfounded over why the book was selected.

So is the book's co-author, UW agronomy professor Jerry Doll.

(Major contributors were Juan Pancho of the University of the Philippines; James Herberger, a former UW horticulture student; Holm's wife, Marian, who twice retyped the 1,150-page manuscript before it was submitted to the publisher, John Wiley & Sons, in New York; and Holm's son, Eric, who compiled all the book's intricate data on his basement computer.)

Naturally they were aware all along of the book's potential significance, says Doll, 54 — noting that it took 13 years to complete the project.

Controlling weeds has become a critical worldwide issue over the last half-century, he says — and will become even more critical as the world's exploding population gobbles up more and more valuable farmland over the next 50 years.

That's why, even now, it's crucial for communities like Madison to limit

urban sprawl — and to think about the long-term consequences of projects such as the proposed expansion of U.S. 12 to four lanes from Middleton to Sauk City.

"Once that land's gone," Doll says, "it's gone forever."

Nonetheless, the award "still blew our minds, he says, considering all the important books on biotechnology and related fields that are coming out practically every week.

"So we're intrigued," he says, grinning, "that a book that includes the word weeds in its title would even be in the running for an award like this — let alone the recipient of it."

To be sure, winning an award was the last thing on Holm's mind when he set out back in 1963 to find out exactly how many weeds existed and where they were located — which, he figured, was an absolute necessity if mankind were ever to succeed in eradicating the most noteworthy culprits.

The estimates at the time ranged anywhere from 50 to 50,000, says Holm, who began his quest in western Russia. "Now we know there are

about 200 weeds causing about 90 percent of the world's weed problems."

But, oh, what problems, he adds.

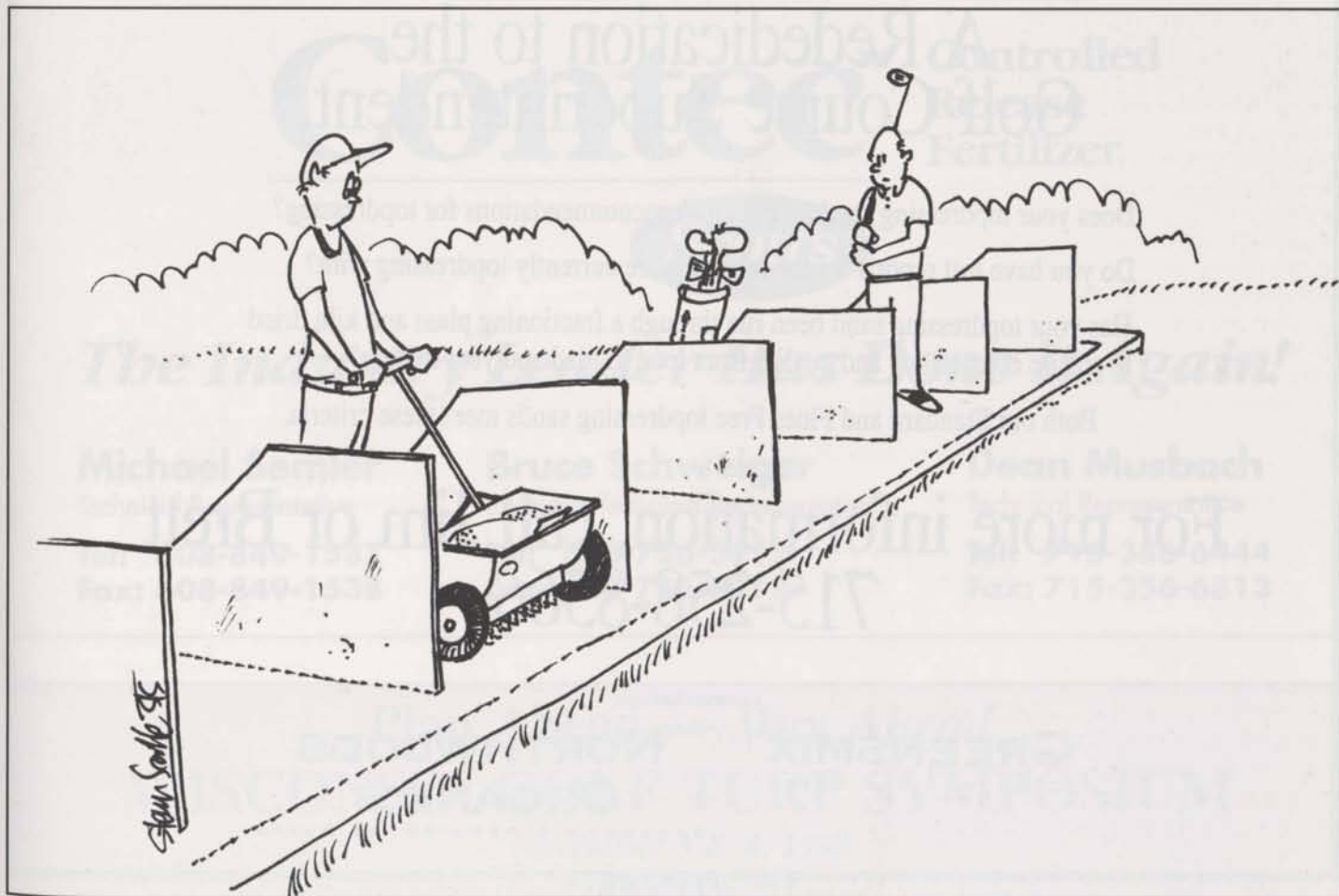
"I stood in more muddy drainage ditches and crops of all kinds than anyone I can think of," he says. "I found one area in India where the whole town was driven out by weeds. And I became convinced that the weeding of man's crops consumes more time and effort than any other single human task."

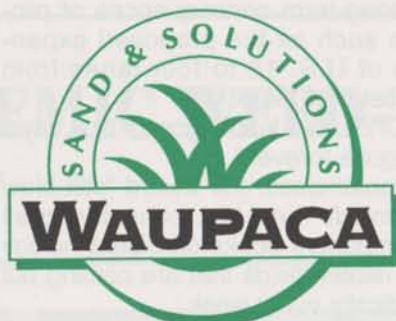
Rice, for example, remains the world's primary food crop, Holm says. Ninety-five percent is grown in Asia — and most of it is still weeded by hand.

"It's really tragic," he says. "It's so time consuming that kids aren't allowed to go to school. There's no time to build sewers or things like that. The people are just out there weeding all the time."

What's more, the worldwide cost of controlling weeds is staggering, Holm says — far eclipsing the amount spent on eradicating plant-eating insects and plant diseases.

(Continued on page 23)





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(Continued from page 21)

Still, people should keep in mind that the problem is somewhat more complicated than it appears, he says. A weed, after all, is any plant that grows where people don't want it to grow.

Bermuda grass, for instance, is a much despised weed on Kauai in the Hawaiian islands and several other tropical paradises. In Florida, it's not only the grass of choice for homeowners, but the principal pasture grass for cattle.

Or how about the dandelion — an annual spring curse in Wisconsin but a popular, tasty plant used in salads and wines in some cultures.

For all the attention "World Weeds" has received, Holm empha-

sizes that it's not aimed at mainstream audiences — but at scholars, scientists, medical researchers and commercial firms that develop herbicides. (Which explains its \$195 price tag.)

That's not to suggest that Holm and Doll can't related to the problem experienced by the average homeowner.

Truth be known, both men have encountered dandelions, chick weeds, quack grass and various other bizarre-looking weeds on their lawns over the years.

Their advice: Don't overreact. Try to keep things in perspective.

Doll says he usually uses a mild herbicide to suppress dandelions and never cuts his grass short than an

inch and a half, thus minimizing the growth of other weeds. (Both say that while one must exercise caution when using chemicals, the dangers of such chemicals have been greatly distorted by the media.)

But dandelions are one thing, he says. When confronted with something as innocuous as crab grass, "I just live with it," Doll says. "I mean, it doesn't look that much different from bluegrass anyway. So I don't worry about it."

Which, Holm agrees, may be the soundest advice of all.

Weeds, you see, are a lot like taxes.

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Milwaukee, WI



The Buzz in the Turfgrass Pathology World: Part II

Jeffrey S. Gregos, Turfgrass Disease Diagnostic Lab,
Department of Plant Pathology, University of Wisconsin-Madison

The snow has finally left, and it is time to start thinking about those summer diseases once again. Reports from around the state have shown that efficacy of some snow mold control products were put to the test with our unusual winter. But, from the past experiences, you know the grass will always grow back. So as we look forward, it is always nice to know what is available in our bag of tricks to battle diseases. In this article, I will once again provide some answers to the questions that I receive about the up and coming fungicides. More specifically, I plan to concentrate on the Daconils and the Maxxes.

Daconil Ultrex

Daconil Ultrex has become very popular since its release. But what is it that separates it from the Hall of Fame fungicide, 2787? Of course the obvious is that it is a dry formulation, but even more important is what is in this formulation. Ultrex employs technology using a carrier system of emulsifiers, surfactants, and wetting agents that enable it to stay in suspension longer than conventional dry formulations. Also, the particle size of Ultrex is finer and less dense than those of other materials, additionally enhancing its ability to stay in suspension. Information provided to me

from Steve Kammerer of Zeneca (You might recall from the last article that Zeneca and ISK have recently merged.), claims that it will go back into suspension as soon as the agitation is re-initiated, if your spray tank is left without agitation. If you are worried about rinsing those jugs, there are no jugs with Ultrex.

Daconil ZN

The newcomer in recent years is Daconil ZN. If you remember back to chemistry, Zn is the abbreviation for the element zinc. So what does zinc add to Daconil? About 4.14% by weight. But, on a serious note it is documented that the Daconil ZN helps enhance recovery from algal scum in comparison to Daconil Ultrex and Daconil WeatherStik. It comes in the same formulation as Daconil 2787, which is a 4.17 flowable, but is a Super WeatherStik formulation.

The Super WeatherStik technology comes from over 30 years of research to find away to effectively adhere the chemical to the leaf. I have seen in my snow mold trial this spring that it does increase the efficacy of the product.

Daconil WeatherStik

Finally the last of the Daconils, Daconil WeatherStik. I have included this product for two years in my snow

mold trial, and I have to say that this technology works. I was amazed that an application at the Noer this year in early October resulted in only 1.3% damage. The other nice thing about this product is that it is a 6 pounds per gallon rather than the 4.17. So, once again their is less to dispose of.

Banner Maxx

What is all the Maxx about? It's about a new formulation of Novartis' well proven sterol inhibitor propiconazole, or more commonly referred to as Banner. You have heard of WP, WDG, F, and EC formulations, but have you heard of MC or Microemulsion Concentrate? This new formulation employs a technology that uses minute particles of active ingredient. These particles are around 0.1 microns in diameter, and are said to be upwards of 250 times smaller than other sterol inhibitor fungicides. Another nice thing about this product is that it is water-based, unlike many of the older EC formulations that were petroleum based. This reduces odor and almost eliminates any possibility of phytotoxicity.

Did you run out of time spraying this morning? No problem, Banner Maxx will stay in suspension for long periods of time. No more filling the sprayer's gas tank up and letting it run all day until you can get back out



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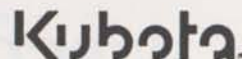
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to spray later. However, like the older formulation, Banner Maxx contains the same active ingredient, and is still a systemic fungicide in the sterol inhibitor (or DMI) family of fungicides. So, use of this chemical should employ resistance management strategies.

Subdue Maxx

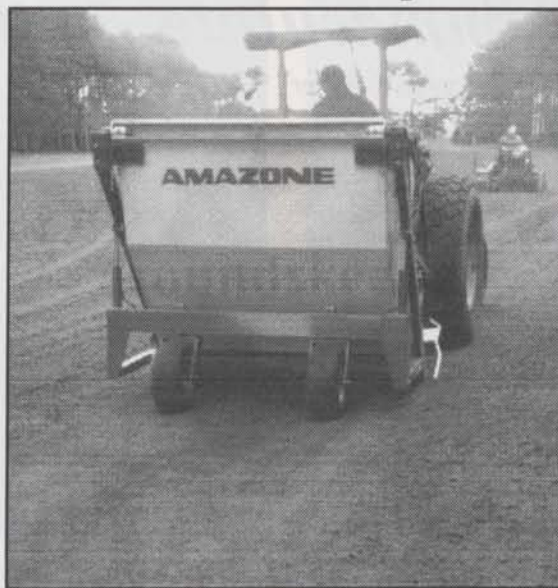
The second of the Maxxes employs the same technology of the MC formulation and is also water-based. But, Subdue Maxx has some added punch compared to the older formulation. Subdue Maxx contains a new isomer of metalaxyl, mefenoxam. Mefenoxam is twice as effective as metalaxyl, this is reflected in the reduced rates for application. For established turf rates are 0.5 -1.0 fl. oz/1000 ft², half of what they were for the older formulation. Once again, resistance is an issue. Even though the active ingredient has changed, it is still in the same family of fungicides, so resistance management practices must be employed.

Because of my fungicide trials, I have the opportunity to evaluate many experimental chemicals and newly labeled chemicals. I also include some of the standard fungicides employed by the turf managers. So, a visit to the O. J. Noer Turfgrass Research Facility during the WTA and University of Wisconsin-Madison Field Day is a good opportunity to make comparisons of these products side-by-side. This year the Field Day will be on Wednesday, August 12, so be sure to mark it on your calendar and plan to be in Madison on that day. If you visit, you will be able to see disease control trials on Dollar Spot, Pythium, and Brown Patch along with other turf management studies. Once again if anyone has a burning question pertaining to certain diseases or their control, please feel free to give me a call (608-845-2435). If I don't know the answer, I am sure that I will be able to find someone does. Keep an eye out for future sequel as you know the fungicide and biological control market is forever changing.

Note: I would like to thank Steve Kammerer of Zeneca and Wayne Wells of Novartis for providing me with information to write this article. 🍷

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GOLF HOUSE — *Immaculate, Impressive and Inspiring*

By Monroe S. Miller

It's a trip I recommend you take someday; Golf House will not disappoint you. I stop there almost every year when I am on my trip to see the fall foliage in the northeast. It almost merits the status of a pilgrimage when you are as involved with golf as you are when it is your career.

Golf House is located in New Jersey, a state that isn't often a vacation destination. But the USGA headquarters are close to both Philadelphia and New York City —about 50 miles west of New York —and Interstate highways can get you close. I-80 and I-78 run east/west and Far Hills, home of Golf House, is between them. I-287 (north/south) also passes within a few miles of the village of Far Hills. Surprising to me on my first visit, in fact, was the pretty New Jersey countryside. If you are like me, I used to think of that state as having more than its share of toxic waste sites, congestion, air pollution and crime. It is so small that it seemed there would be little left for natural beauty or productive agriculture. A ride near the Delaware Water Gap or a trip to Cape May will remove your prejudice. Not only that, the great Green Bay Packers Coach Vince Lombardi is buried in the Mt. Olivet Cemetery in Middletown, which isn't particularly far from Far Hills.

Despite a location in the midst of two heavily populated areas, once you are through the small town of Far Hills and are approaching Golf House, the sense of a quiet, peaceful wooded countryside overtakes you. There are large estates, riding stables and country homes. I am often left with an expectation of a fox hunt — red fox on the run, fox hounds in pursuit, natty attired hunters on beautiful horses giving chase. It seems an area of escape for the most prosperous of Manhattan.

The directions and signage to Golf House are not impressive, however. The first trip there left me feeling foolish — I stopped to ask a man for directions and without saying a word,



The well maintained entrance to Golf House sets the stage for an inspiring visit.



The Administrative Building is where Jim Snow's Green Section office is located.



This is the view of Golf House that welcomes you as you leave the parking lot and walk to the museum.



The library is through the door between the white columns, a view seen as you stand in the yard fronting the Administrative Building.



The Testing and Research Building is the third of the USGA headquarters.

he pointed to a small sign. It's quite understated!

The road into the museum and headquarters is a long, curving drive through a mostly grassy area, dotted with mature evergreens and large

deciduous trees. I am always there in autumn, so the fall color has been great. The road leads to a circular drive in front of the museum or down to a parking lot well shaded by big trees.

The headquarters facility actually consists of three main buildings — Golf House itself, a relatively new and formidable headquarters building, and research and testing center beyond that. They are all in immediate proximity to one another.

The gem is Golf House. It is a 75-year old Georgian Colonial mansion that the USGA has called home since March 8, 1972. It was designed in the 1920s by John Russell Pope, one of America's foremost architects. He designed famous buildings like the National Gallery of Art, the National Archives building, and the Jefferson Memorial, all in Washington, D.C. He also designed the American Battle Monument in France.

The main entry is a large wooden white door flanked by two white columns. It opens into the center portion of the mansion which serves as a lobby. On either end of the lobby (we are still on the first floor) are two large rooms. One is the gift shop — heaven if you are looking for a gift for someone involved with golf. The other is the Bobby Jones Room. It is a sitting room with comfortable couches and chairs and a prize collection of Jones memorabilia.

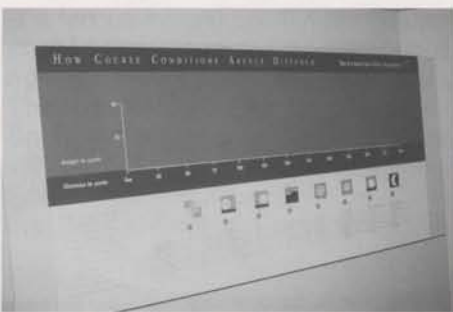
Through the lobby and running the distance of the three main rooms is an exhibition gallery that changes from time to time.

This center portion of the house is flanked by rooms that are rectangular and at a right angle to the center section. There are connecting hallways to them. The left room houses the best portion of the facility — the library. It is an impressive sight. I cannot imagine what titles they might be missing. The center of the library is occupied by a large conference table. I have spent some time at it, including making notes for this short article.

Outside of the library (actually, just before its entrance) is the Francis Ouimet Room.



Tours of the test facility are self-guided.

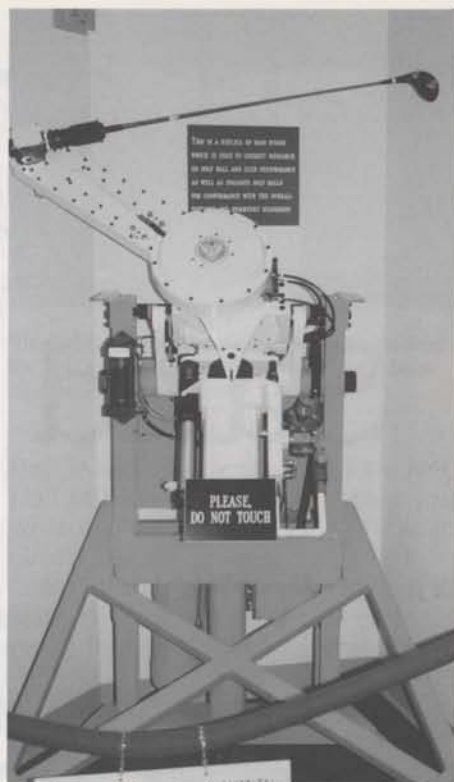


Every golf course superintendent would love to have this graphic display available in lockerrooms and the golf shop!

The opposite wing has displays of golf balls, prints and lots of other golf artifacts from the rubber ball era of golf. Just before entering this wing there is a small room, similar to the Ouimet Room, that has a display of memorabilia from the gutta percha era of golf.

Routing takes you upstairs from the rubber ball displays. The Clubs of Champions Room is at the top of the steps. From there you move through a hallway to a small theater, and from there to a display area. It is immediately above the gift shop, lobby and Jones Room. One year pieces of golf course equipment were featured — horse drawn mower, cup cutters, cup liners, old tools, etc.

From there you enter the hallway again. There are lots of photos and



The famous "Iron Byron" that is used to test golf equipment and execute USGA research.

posters on the walls, and a room on the back of the house is a photo gallery. Another room features a club makers work studio from two different eras — turn of the century and maybe the 1940s, for example.

The next room has old golf equipment on exhibition. At that point stairs take you back to the first floor. The area above the library is used for offices.

My usual practice is to go from Golf House to the Administrative Building and call Jim Snow. Sometimes he is there; sometimes he is out of the office. Last fall Kimberly Erusha came down to visit for awhile. She's from Iowa, so we had some Midwestern conversation to share!

The final stop is to the research and test center. These days there is a self-guided tour; it wasn't always so. One year, while nosing around, I struck up a conversation with a staff worker and got a good look inside. The famous "Iron Byron" is there, although it has never been outside and in use during one of my visits. A wide open grassy field — range or fairway — is behind the test center. It starts at the observation deck and extends well beyond the range of even Iron Byron.

(Continued on page 29)

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(Continued from page 27)

If you are looking for a Wisconsin connection — I always am — I found this: when the move to Far Hills was made in 1972, Lynford Lardner was the president of the USGA. Mr. Lardner was a member of Milwaukee Country Club and a partner in the Foley and Lardner law firm that is so widely known today.

Before moving to the New Jersey countryside, Golf House was a five-story limestone building located at 40 East 38th Street in Manhattan. Their collection has certainly been more accessible in New Jersey than it was while in midtown Manhattan!

I have visited the Pro Football Hall of Fame in Canton, Ohio and enjoyed it greatly. The Baseball Hall of Fame in Cooperstown, New York has been a stop for me three times even though I am no great baseball fan. It



The practice fairway/range is behind the test center.

is a Mecca for any sportsman, however. And the village of Cooperstown is right out of a Currier and Ives print. The Basketball Hall of Fame in Springfield, Massachusetts is more commercial and less impressive than these others. My favorite, of course, is the Packer Hall of Fame in Green



The USGA uses the practice range behind its test center to promote the Green Section research program.

Bay. It had more visitors than the NFL Hall of Fame in 1997; that tells you what a great collection they have in Green Bay.

But most impressive, to me at least, is the collection at Golf House. I really hope you get to see it sometime. 🏌️

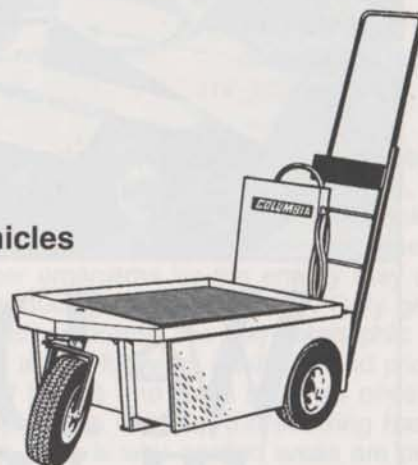
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