

work together to address the two main EPA objections to previous applications (1) No evidence of a significant market disruption if golf doesn't have MeBr and (2) the technical feasibility of some alternatives to MeBr. A task group will be formed to coordinate efforts to submit a more compelling application.

ENVIRONMENTAL STUDY TO BEGIN THIS SPRING

Editor's note: Given the growing trend for counties and municipalities to consider a patchwork of individual ordinances to deal with perceived problems with fertilizers and pesticides, it behooves every golf course to participate in the GCSAA's series of baseline data surveys to solidify and document the true scope and nature of what we do on golf courses. Make it a point to go out of your way to support this data collection effort. It's only your job and golf course at stake.

Despite a growing database available to aid the golf industry in making

decisions, GCSAA is aiming to fill a significant void by embarking on a project this spring that will evaluate golf course environmental performance.

This multi-year project, the Golf Course Environmental Profile, is designed to collect information that will ultimately allow golf course superintendents and others to become better managers, help facilities operate more efficiently and lead to GCSAA developing more valuable programs and services. Such information will include details about playing surfaces, natural resources, environmental stewardship efforts and maintenance practices. The project is being funded by the Environmental Institute for Golf, thanks in large part to a grant from the Toro Foundation.

"Organizations such as the USGA Green Section, GCSAA, universities and private industry have funded and administered research that has been invaluable for the game," said outgoing GCSAA President Timothy O'Neill,

CGCS. "We know that golf courses are compatible with the environment, but we also know that there are gaps in the data, especially in the collection of aggregate golf course information. We believe the data will be helpful on many fronts."

The most glaring absence comes in collective golf course performance data. Existing data is limited and not complete, uniform or centralized. GCSAA officials contend that this multi-year initiative will not only benefit superintendents and golf facilities, but communities and golfers as well.

Blue Tag Rebate Program Nets Donation to FGCSA

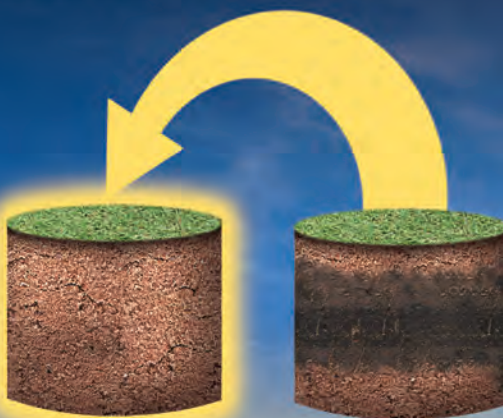
The PGA National Golf Club turned in their blue seed tags from their 2005 seed purchases from Turf-Seed,

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...Thousands of dollars could have been dispersed to the FGCSA if the courses were better informed of this program.

Inc. earning a \$788 rebate check for the FGCSA Research Fund. Unfortunately that was the only club in the state to take advantage of the Blue Tag program last year.

Greg Freyermuth of Turf-Seed said, "We feel that there were several thousands of dollars that could have been dispersed to the FGCSA if the courses were better informed of this program."

The program was advertised in the FGCSA Green Sheet last fall and Freyermuth made a presentation to the FGCSA at the spring board meeting in Naples last year. Distributors are also aware of the program and should be bringing it to the attention of the golf-course customers.

Turf-Seed and Tee-2-Green pledge to contribute 50 cents for every Turf-Seed variety or mixture blue tag and/or \$1 for every Tee-2-Green PennPals variety or mixture blue tag turned in.

The blue tags are sewn on the bag to signify that each seed is certified. The tags must be removed from the bag and sent to Turf-Seed, Inc. with the name and location of the golf course. These funds are distributed to the state chapter to be used for research endowments and educational advancements.

"I would like to look into some way we could promote this program more vigorously," says Freyermuth. It has been in place for 10 years now.

FGCSA President Craig Weyandt agreed that we must come up with a way to create more awareness of this program, which is an easy way to benefit the industry.

If you have any questions about the program, contact Greg at 407-257-7325 or email at greg@turf-seed.com.



Terminator Meets Caddy Shack

New propane-oxygen injection systems like the Rodenator Pro units shown here have become very popular for controlling moles and other rodents on golf courses around the country. Oxygen mixed with propane is heavier than air and sinks into the rodents' tunnels and dens. When it's ignited it produces an expanding force traveling at 5,000 feet per second. The concussion collapses the tunnel network and produces first-pass kill rates up to 90 percent. The exterminator then follows up with trapping to get the surviving stragglers.

Plants of the Year

The first in the Plants of the Year series for 2006. The plants selected for this program have been found to be good performers in the Florida environment and require less maintenance and inputs. Here are two specimens for your consideration. Go to www.fngla.org for more information and suppliers who carry these plants.



Common name: African Blue Basil
Botanical name: *Ocimum kilimandscharicum* X *O. basilicum purpurascens*
Hardiness: Zones 8-10
Mature height and spread: 24-36 in.
Classification: annual, herb
Landscape use: Herb garden or as a fragrant ornamental
Characteristics: Developed by crossing camphor basil (*O. kilimandscharicum*) with purple basil (*O. basilicum purpurascens*), this herb prefers full sun and moist soil with erect purple blooms with a soft extruding flower. Its fragrant leaves can be used for culinary purposes.



Common name: Phalaenopsis Kaleidoscope
Botanical name: *Phalaenopsis* Baldan's Kaleidoscope 'Golden Treasure'
Hardiness: Zones 10-11
Mature height and spread: 15 in. and up
Classification: Tropical foliage
Landscape use: Accent plant for baskets, typically used indoors
Characteristics: Noted for its stunning coloring and abundant blooming, the flowers have red lips, reddish purple striping and a pale yellow background that starts as strong yellow and lightens as the bloom matures. This *Phalaenopsis* produces multiple flower spikes as it matures.

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Illinois Lawsuit Threatens U.S. Food Supply, Says Hydrologist

Editor's Note: *Turfgrass is not far behind. Atrazine is a key herbicide for weeds in St. Augustinegrass. Already several local governments have banned pesticides for aesthetic use. This advisory is being presented as a classic example of the use or misuse of junk science to challenge in courts the overwhelming peer-reviewed studies on the lack of environmental impact caused by properly applied EPA-approved products. The danger is real but it comes from those who have an agenda whether it's greed or environmental elitism.*

A lawsuit pending in Madison County, Ill. could seriously threaten the domestic food supply in the U.S. According to Jay Lehr Ph.D., senior fellow and science director for The Heartland Institute, "This may sound alarmist, but it is true."

Lehr is an authority on groundwater hydrology. After graduating from Princeton at the age of 20 with a degree in geological engineering, he went on to receive the nation's first Ph.D. in groundwater hydrology, from the University of Arizona. He later became executive director of the National Water Well Association and the Association of Groundwater Scientists and Engineers. In late 2005, Wiley-Interscience released Lehr's six-volume Water Encyclopedia: Surface and Agricultural Water.

In the essay below, Lehr explains how the lawsuit in Madison County is based on a small number of highly suspect studies alleging that the popular herbicide atrazine is a carcinogen and "endocrine disrupter."

Since 1959, farmers in the U.S. have used atrazine to allow corn, grain sorghum, sugar cane, and other crops to reach maturity without the competition of a wide range of broadleaf, energy-sapping weeds and grasses that rob the plants of water and nutrients. Atrazine is presently used on two-thirds of U.S. corn and grain sorghum and as

much as 90 percent of all sugar cane. In Illinois, atrazine is used on 75 percent of the state's corn.

Unlike most other herbicides, atrazine can be applied effectively before, during, or after planting — and even after crop emergence, as it does not harm the food crops themselves. Because of this unique trait, atrazine is extremely popular for use in conservation tillage programs, where crop residues are left on the ground and the next crop's seeds are planted below the residue. This new concept in tillage virtually eliminates soil erosion and rainfall runoff while improving plant growth and carbon absorption. It also reduces fuel use, exhaust emissions, and equipment wear, all of which lower production costs for the crops.

Atrazine results in significant increases in crop yields. But what about the health effects of its residues on edible food?

EPA has established a drinking-water standard for atrazine of 3 parts per billion. To arrive at this standard, EPA extrapolated from laboratory experiments with rodents to a dose having no unsafe effects on a hypothetical 150-pound adult likely to drink 21,000 gallons of water during a 70-year lifetime. It then divided this "safe" lifetime ingestion amount by 10 to account for infants who might drink the water, then divided that number by 10 to account for the elderly who might have reduced immune systems, and finally divided it by 10 once again to account for the possible vulnerability of unhealthy people within society. The result is a standard 1,000 times lower than the "safe" dose for a typical adult.

Many experts believe the atrazine standard is overly restrictive. For one reason, tests conducted on laboratory rodents are generally unreliable guides to potential threats to human health, since the natural defenses of rats and

mice against chemicals differ from those of humans (and even between rats and mice). Laboratory tests involve exposure to massive doses of a chemical over a short period of time, with the results then extrapolated to dramatically lower doses. To set a standard 1,000 lower than what even those biased studies suggest is, well, draconian at best.

JUNK SCIENCE

A lawsuit against atrazine use has been filed by Holiday Shores, a small water district that serves a subdivision in Madison County, Ill. — identified as "a judicial hellhole" by the American Tort Reform Association because of its tendency to favor plaintiffs. The plaintiff contends levels of atrazine in surface water are unsafe, even though they meet current standards set by the U.S. Environmental Protection Agency, and even though Holiday Shores is selling only water that meets the EPA standard to its customers.

The suit was filed by a lawyer who made millions of dollars suing tobacco companies, and he is seeking to have the atrazine suit certified as a class action on behalf of some 1,800 water districts in Illinois.

The suit relies on claims based on a small number of highly suspect studies alleging that atrazine at any concentration is a carcinogen and "endocrine disrupter" capable of causing biological mutations. This is a standard tactic of alarmists — to search a huge literature to find a small number of studies that, due to small sample sizes, poor methodology, or just random chance arrive at findings contradicting the rest of the literature.

In preparation for a recertification decision EPA must make later this year, the agency recently completed a 10-year evaluation of thousands of studies of the health effects of atrazine.



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It studied and rejected all of the claims of atrazine's critics. Atrazine, in fact, is arguably the most benign and effective herbicide known to U.S. agriculture.

And yet the "junk science" used by atrazine's foes is finding its way into litigation in Madison County, where it could indirectly determine national farm policy. If the lawsuit succeeds, all of the crop protection chemicals essential to agriculture in the U.S. will be in danger of elimination.

EFFECT ON AGRICULTURE

If atrazine were removed from the market out of fear of baseless litigation, our nation would have to return to the farming practices of yesteryear, when yields were less than a third of today's production and diseased crops were the order of the day. Nearly every type of food would be in shorter supply and their prices would increase. The poor and elderly on fixed incomes would be hit hardest by this result. Farmers, who

I dislike the fearmongers I have described here, but I am truly frightened by what their latest campaign could cause.

increasingly compete with imported food products from Mexico and other developing countries, would also be hard hit.

I dislike the fearmongers I have described here, but I am truly frightened by what their latest campaign could cause. (Fear, by the way, is not a common emotion for me. One of my hobbies is jumping out of airplanes ... with a parachute, of course!). Like most people, I like to eat nutritious food at a fair price, but lawyers are threatening to put that simple request out of reach.

U.S. citizens pay about 10 percent of their family budgets on food.

Only two other countries, Finland and France, pay less than 20 percent of their income on food. We've got it very good here, and we've come to take it for granted.

The lawsuits against atrazine in Madison County are the latest proof that we cannot stop defending the technological progress that has made us the world's most prosperous country. Let us hope sanity and sound science prevail in this lawsuit.

Jay Lehr, Ph.D. is science director of The Heartland Institute, a nonprofit research organization based in Chicago. He is the editor of many leading scientific reference books, most recently the six-volume Water Encyclopedia. He can be reached at lehr@heartland.org.

For more information about The Heartland Institute, visit its Web site at <http://www.heartland.org> or contact Michael Van Winkle, media affairs assistant, at 312-377-4000, email vankwinkle@heartland.org.

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Naturalizing areas can add significant beauty and contrast to the golf course.

Can You Do Both?

Enhancing wildlife habitat and maintaining good playability.

*Stewardship Notes
Compiled by Shelly Foy*

Some of the benefits to naturalizing areas on the golf course include:

- **Providing food** and cover for wildlife
- **Contributing** to the conservation of local wildlife species
- **Contributing** to overall habitat in an area, especially when naturalized areas connect to other properties
- **Lowering maintenance** costs by reducing equipment wear and tear, as well as reducing the need for pesticides, fertilizers and water
- **Adding contrast** and natural beauty to the golf course

With a little thought, we believe you can enhance the wildlife habitat on the golf course and still have excellent playing conditions. Here are some things to consider:

NATURAL AREAS

- **Location:** Think out of play areas! Areas between fairways, below elevated tees, in roughs and bordering woodlands may be well suited for naturalization.
- **Plant Selection:** Think native! There is a reason why they grow well in our environment. Besides requiring less water and fertilizer, native plants hold up better during hurricanes.
- **Irrigation:** Needed for establishment,

but can then be eliminated to minimize weed invasion.

- **Start slowly** when developing naturalized areas so you can learn what works and does not work on your golf course. This will save you time and money in the long run.
- **Important to know:** Naturalized areas that you create are not “set in stone”. They can be altered if you find that they are not working the way you had planned.

Note: Maintenance requirements and inputs are reduced in naturalized areas compared to turf, but this is not a “no maintenance” feature, especially here in Florida. Your budget needs to include adequate resources for control-

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John Reilly - Superintendent
Stonegate @ Solivita Oaks And Cypress Courses



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- Provides aesthetic highlights and helps to stabilize shorelines
- Reduces erosion

Note: Aquatic plant material directly in the line of play can impact the speed of play when golfers are searching for balls and can cause problems with the Rules of Golf as well. In these locations, turf buffer strips are a good alternative.

GOLF COURSE PLAYABILITY ISSUES

Pace of play is important to all golfers. When creating wildlife habitat, keep these things in mind.

- **Be careful** to not create habitat in areas where golfers will likely hit the ball: this can obviously slow down pace of play.
- **Especially** for average- to high-

NATURAL AREAS: Patrick Blum, Superintendent at Colonial Acres Golf Course, a 33-acre semi-private 9-hole course in upstate New York, marks possible areas for naturalization and then monitors these areas for footprints. If there are fewer footprints than his pre-determined threshold, he naturalizes that area

ling over-growth and weeds.

AQUATIC VEGETATION SHORELINE PLANTINGS

- **Extremely important** for providing habitat as well as a food source for a variety of wildlife
- **Helps maintain** water quality and filters runoff



BUFFER: Research has shown that an 8 to 15 ft. strip of higher cut vegetation, or turf buffers, is needed to help reduce surface runoff, provide sediment filtering and dilute chemicals. Moist soil conditions require wider buffers strips due to decreased infiltration.

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