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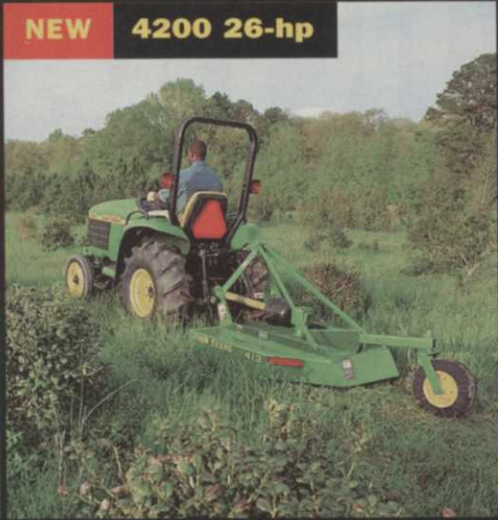
**ALL YOU NEED  
TO PREVENT OR CURE.**

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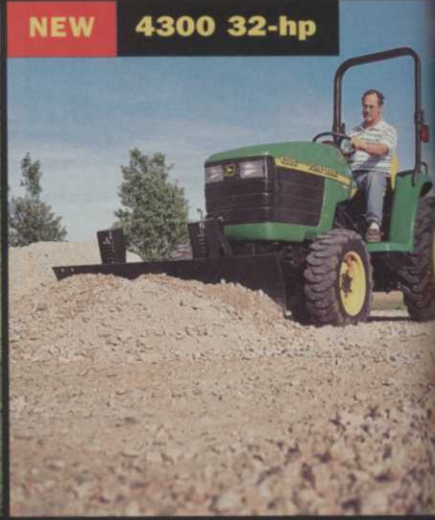
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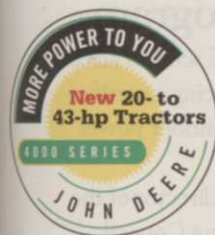
NEW 4400 35-hp



NEW 4500 39-hp



NEW 4600 43-hp



**They're here!** The new John Deere 4000 Series Tractors—loaded with the features you've been looking for. **More Torque**—you can keep going when the going gets tough. **More Hydraulic Power**—you'll lift more, and keep your power steering. **More Hitch Capacity**—to handle heavy 3-point implements. **Independent PTO**—step on the clutch and your PTO-driven implement keeps on running. Optional **Reverser Transmissions**—change directions at the flip of a lever. Optional **Hydrostatic Transmission**—the ultimate in speed and direction control. **4-Wheel Drive**—extra traction, available on-the-go, at the touch of a lever. **New Loaders and Backhoes**—two of a multitude of attachments. They hook up in minutes, and work hard all day long. **Priced Right**—they're more affordable than you think. Plus these new 20- to 43-horsepower tractors come from the **John Deere Factory** in Augusta, Georgia. The new, and amazing, 4000 Series Tractors—**More Power to You.**



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# NLA fights turf restrictions in Las Vegas

**Las Vegas** — The Nevada Landscape Association (NLA) has been busy successfully representing the green industry in an effort to affect a water conservation bill in Las Vegas. The bill sought to limit the amount of turf on commercial and residential properties. Water conservation is one of the NLA's biggest issues; in fact, the Reno chapter of the organization was successful in becoming a part of the strategic planning for water planning in Reno in the early '90s.

ter immediately swung into action. In spite of the late start, the NLA was instrumental in having the bill amended slightly in the green industry's favor. Initially, the bill stated that for new development, residential turf could not exceed 50% of the total landscapable area. This was amended to 50% of the "total front yard" which increased the amount of turf allowed, and which was more in keeping with the Coalition's original proposal. In addition, the bill banned turf completely on commercial projects. This was ultimately amended to allow 25% turf.

While the amendments were not as far-reaching as desired, Debra Drew, executive director of the NLA feels that the bill is liveable and that the involvement of the NLA is only the first step in representing the green industry in Las Vegas.

## BILL 98-35

Commercial/Industrial Districts	Limited to a maximum of 25% of total landscapable area
Public Facilities Districts	Prohibited, except for schools, parks and cemeteries
Golf Course Use	Limited to 5 acres/hole, with a maximum 10 additional acres for driving range
Residential Districts (single family)	Limited to a maximum of 50% of total front yard area
Residential Districts (multifamily)	Limited to a maximum of 30% of total landscapable area

The newly organized Las Vegas chapter of the NLA had hardly been established when it learned that increased turf restrictions were being considered for the city. The Southern Nevada Coalition 2000, a group of private-sector activists, had recommended turf restrictions for new homes only. The goal of the Coalition was to be "restrictive without being oppressive," and it had the backing of the Southern Nevada Homebuilders Association, which represents the construction industry.

The initial proposal was expanded upon to be an even more restrictive ordinance by the mayor of Las Vegas, Jan Jones. The proposed bill would have tightened the city's restrictions by banning grass in front of businesses and public facilities as well as allowing at least 20% less turf in front yards than the Coalition's initial proposal.

The progress of the ordinance was well under way by the time the new branch of the NLA learned of it. The newly minted Las Vegas chap-

## Schools like technician certification program

**Austin, Texas** — Vocational schools across the United States are embracing a certification program for teaching outdoor power equipment technicians.

Virgil Russell, executive director of the Equipment & Engine Training Council (EETC), based here, said, "the interest in schools to become certified is far better than our original projections."

These four schools have become EETC Certified to teach technical education for the outdoor power equipment industry: Lake County Area Vocational, Grayslake, IL; Ohio Technical College, Cleveland, Ohio; Madison Area Technical College, Madison, WI; and Anoka-Hennepin Technical College, Anoka, MN. EETC certification is pending for 14 other schools, said Russell.

## Frontier a finalist for St. Andrews project

**ST. ANDREWS, Scotland** — Frontier Construction Co. is one of four finalists invited to bid on Phase I of a massive irrigation reconstruction project in the birthplace of golf. The St. Andrews Links Trust, which oversees administration of the world famous Old Course — in addition to the town-owned New, Jubilee, Eden, Strathtyrum and Balgove courses — has decided to replace the antiquated patchwork systems at all six layouts.

A centralized irrigation system has been custom designed by Robin Hume and Associates of Shrewsbury, England. Toro will provide the irrigation heads, and the Trust will soon choose an irrigation contractor to handle the system's complicated installation. Based in Jones Mills, PA, Frontier Construction is the only U.S. firm among the four finalists.

"We're honored to be named among the final four," said Frontier President Nick Scigliano, "and we're excited about the prospect of working in St. Andrews. What construction company wouldn't jump at the chance to work on such hallowed ground?"

Hume has designed a system whereby all six courses will be fed from a single centralized pump station. While the head greenkeeper at each layout will have a subcontrol unit, Links Manager Ian Forbes — who oversees maintenance of all six courses — will control the master unit.

"The conservation implications are significant," Scigliano explained. "With the new system, the links manager will be able to allocate only the water each individual course needs.

"Some have questioned whether St. Andrews is going overboard on the ir-

rigation issue," Scigliano continued. "But it's important to understand The Trust has only chosen to replace what's already there. And what's there is an antiquated, patchwork system."

The four finalists have been invited to bid only on Phase I, which encompasses renovation of the Balgove, Eden and Strathtyrum courses; work on the Old, New and Jubilee courses will follow next year. The contract stipulates that Phase I be completed by spring 1999, meaning the chosen contractor must install more than 1,500 irrigation heads on three separate courses while working through Scotland's bleak winter months.

"It's a very aggressive schedule," said Scigliano. "The timing presents a major challenge."

Frontier Construction is one of the golf industry's busiest irrigation contractors and course construction firms. During the past 12 months, the Frontier team has completed 18-hole irrigation installations at Duquesne (PA) Golf Club; Sugar Creek Golf Course in Lima, Ohio; St. Clair Country Club outside Pittsburgh; Windber (PA) Country Club; and Coamo Springs Golf and Tennis Club in Coamo, Puerto Rico.

No less active on the course construction side, Frontier also built Coamo Springs, an 18-hole Ferdinand Garbin design. Other recently completed new construction includes a fourth nine at Lindenwood Golf Club, McMurray, PA; nine holes at Red Oaks Golf Club, near Bloomington, Ohio; and a second nine (subcontracted from The Bruce Co.) at Treesdale Golf & Country Club in Gibsonia, PA.

## AgriBioTech seeks to increase stock values

AgriBioTech Inc., a leading forage and turf grass seed company, has hired an investment

bank to attract buying interest from major chemical and life sciences firms that want to gain a foothold in the biotech seed industry.

AgriBioTech has a 40% share of the US forage and turf grass seed market, strong germ plasm and biotechnology agreements with various companies that give AgriBioTech access to more technology.

## Worldwide biotechnology research alliance formed

Dow AgroSciences LLC and Rhone-Polenc Agro signed a letter of intent to conduct research in the field of plant biotechnology to develop genetically modified plants and seed products containing multiple traits. This proposed research alliance supplements the proposed collaboration between Rhone-Polenc Agro and Mycogen Corporation, a majority-owned subsidiary of Dow AgroSciences, by adding non-Bt insect control proteins.

## Heritage® fungicide approved for turfgrass use

Heritage fungicide from Zeneca has been granted approval for turfgrass disease control for lawn care and sports turf by EPA. Previously only registered for use on golf course turf and sod farms, Heritage can now be used for lawn and sports turf for more than 18 turfgrass diseases.

## Corrections

In the LM 100 article (Sept. 1998, p. 18), we incorrectly stated the variety of bentgrass being used at Pinehurst Resort & CC's famed #2 course. The correct variety is in fact Penn G-2, which is also currently in use on Pinehurst's #1, #5 and #8 courses.

Also, in the LM 100 article, Environmental Industries, Inc., Calabasas, CA, reported 1997 revenues of \$351 million, 17% more than 1996. 1998 anticipated growth is about 21% with sales of about \$425 million.

We regret any confusion this may have caused.

[CLIPPINGS]



*The sheer volume of free information available makes the Internet a resource that cannot be ignored.*

By CURT HARLER and DAVID WEINSTOCK/ Contributing Editors

For fast answers, the Internet is the place to be. The Internet is a good place to start whether it is to solve an insect problem, order a mower part or check out recommended seed vari-

eties. Even more important than the Web sites listed below may be the many links from these sites to other key URLs.

A warning with using the Internet: don't fall into the "familiarity breeds contempt" trap. Local university and turfgrass experts still have the best handle on the local agronomic situation. The University of Florida's site is a good example of a great resource. It's a mistake to think that just because someone has an Internet site or is located far away, they know more than the local experts.

However, when the local dealer can't locate a part or where you want to find out "how the other guy does it," the Internet is a great vehicle. There are even some "fun" sites which will help eat up hours on rainy days or can be referenced in your customer newsletter.

The Internet is a solid-waste dump of information. Considered on the whole, there is precious little organization and fewer quality sites than poor ones. Yet the sheer volume of free information available makes it a resource that cannot be ignored. Search engines help. But all they really do is narrow the field by creating sometimes-giant lists of sites that contain words specified in initial search terms.

What follows is a listing of what we consider to be some of the better lawn care and turfgrass sites on the World Wide Web. How did we find them? We began by using search engines—primarily AltaVista, Hotbot, Infoseek

and Excite. Later, we simply followed links from pages we'd already found in search of other promising material.

The sites we've listed here tend to be the most information-rich sites we could find. We also put a premium on pages that were easiest to navigate. A good example of this is floridaturf. This page features a very slick design that loads quickly. Cyberlawn is another page that is easy to navigate, though it does take a while to load.

If a design award were to accompany this article, the homepages of the now-defunct Lawn Institute (<http://www.lawninstitute.com>) would win it hands down. It is clean, elegant and very simple. Get there, if you can, before it is taken down.

Some sites really wowed us with content. Others had cool tools from which turfgrass and lawn care professionals could genuinely profit. We tended to bypass sites that simply listed abstracts or even full text publications.

# A pro's guide to 'surfin' turf



Even with the find features most web browsers have, these sites can be very difficult to search. Others sites not included in this list were those that charged an access fee, such as the Turfgrass Information Center at Michigan State University. Though it is widely praised and was temporarily available, free-of-charge, while the MSU library tested its new interface, the connect fee was to be replaced well before press time.

#### **Irrigation Association**

<http://www.irri-gate.com/>

Everyone knows the way to find information on the Web is to use a search engine. But everyone who has used a search engine knows that even if you're a power user familiar with Boolean logic, field or phrase searching, the results you get are nine-tenths junk. David Zoldoske, director of the Center of Irrigation Technology at California State University, Fresno, has an answer for anyone interested in surfing up irrigation info. Irri-gate.com is a slick little search engine developed by the Irrigation Association.

Billed as an "irrigation-specific" engine, slick is the operant word here. It features a pretty good variety of search options ranging from standard keyword searching to field, title and URL searching and even relevancy ranking.

It also features a variety of non-standard search features, such as "What's New," "What's Popular," sounds-like and synonym searching. All this is available in a handy user template that allows visitors to pick search options from two pull-down menus.

Laura Dorsey, IA's Webmaster, said they use two bots to scan the Internet every 90 days and also collect Web sites via an automatic URL submit-site function. In operation for 1.5 years, Dorsey estimates the engine database has 60,000 pages.

#### **USGA Green Section**

<http://www.usga.org/green/>

Staying current in the golf course construction and maintenance game means keeping up with what's new with the U.S. Golf Association. The best place to do that, according to Charles Mancino, Penn State Extension turfgrass management specialist, is the Green Section of the USGA site.

This Web page could serve as a model for organization. It uses a file folder design metaphor to direct visitors to areas of interest. Some of the featured areas offer services like USGA's Turf Advisory Service and its Construction and Environmental Education Programs.

The site also lists all the research USGA is funding and has a download section containing a baker's dozen of articles on golf course construction and maintenance.

#### **Lofts Seed Inc.**

<http://www.turf.com/>

An outfit with a URL like this one either beats everybody in the turf industry to the Web, or paid top-dollar to one of those outfits that buys up all the good domain names and resells them to people who really want them.

Either way, they topped this great Web address with a well done, consistent design that includes a modest amount

of animation. This site proves, once again, you can project a conservative, professional image without looking stodgy.

It begins with a consistent background of (guess what!) grass with overlaid pictures used as links to pages deeper within the site. The design also incorporates a judicious use of frames for those less inclined toward visual navigation.

But what really sets this site apart from many others in the industry is that someone taught the Lofts people about the value of creating a virtual com-



munity around their product lines. Instead of just posting pictures about their products, Lofts created a virtual place to stop and learn about what they sell and, even more importantly, who they are.

Got a lawn care question? Click on "Ask the Experts" and email your question to one of their product specialists. Want to know at which trade show you can find them next? Click on their calendar. Want to know more about Lofts than what kind of seed they sell? Check out their press releases. The company history is here, too, if you want to read it. But

perhaps one of the more interesting parts of this site is their testimonial area. You know the famous places that use our seed? Our favorite was the one about the Pentagon.

#### **Cyberlawn**

<http://opei.mow.org/>

Anyone who has ever had to crunch out a newsletter for customers knows how difficult it can be to find worthwhile material to include.

The Outdoor Power Equipment Institute's Cyberlawn site is packed with lots of easy-to-digest information on lawn-mower repair, maintenance

and safety topics. One of the neatest parts of this site is its Kids Section. It features a number of mower safety-related coloring pages that can be printed out easily. Of course, you'll need to get permission from OPEI to use these in your newsletters. There are also some interactive activities for children that are also safety-related.

Be sure to log in to the Mower Repair Shop section for information on engine tune-up, seasonal maintenance and fuel handling tips. There is also a collection of equipment service listings.

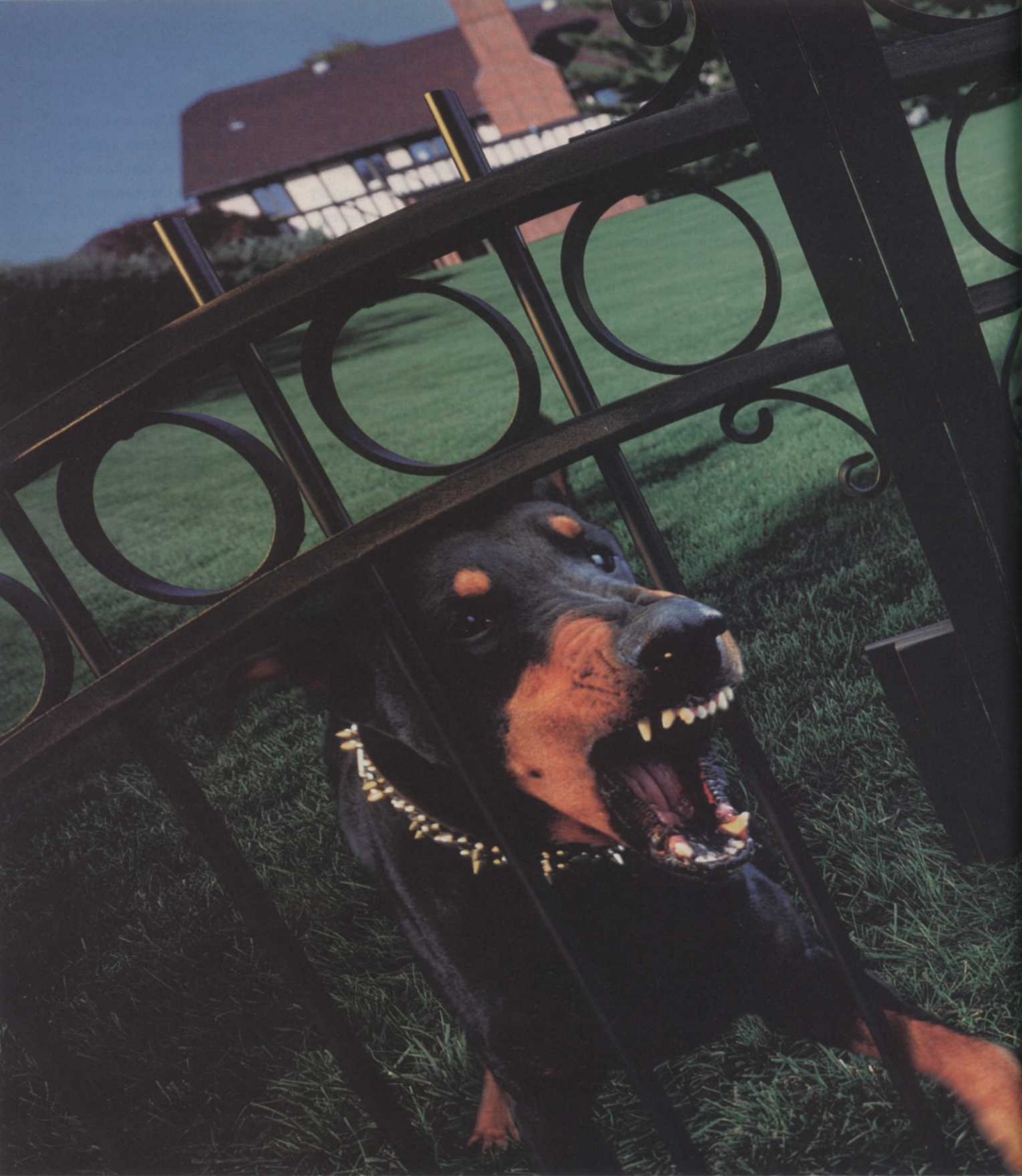
One other section worthy of note is a seasonal safety and maintenance calendar for a wide variety of outdoor power equipment.

#### **EXTOXNET**

<http://ace.orst.edu/info/extoxnet/>

EXTOXNET is an acronym for the Extension Toxicology

*cont. on page 20*



## If you really want to keep something

It takes two fierce herbicides acting side by side to keep crabgrass, goosegrass, spurge, oxalis and other weeds from breaking into your customers' property. Team\* Pro preemergence herbicide combines Balan\* and Treflan\* herbicides into the most consistent, fast-acting, long-lasting crabgrass preventer available. Team Pro protects lawns better than pendimethalin without severe staining of spreaders, shoes or landscaping.





## out of a yard, unleash the Power of Two.

And Team Pro won't harm established ornamentals, turfgrass or your reputation for a good value. For information on fertilizers formulated with Team Pro, talk to your supplier. Or call us at 1-800-255-3726 or visit our web site, [www.dowagro.com](http://www.dowagro.com). Then stand back, and unleash the Power of Two. Always read and follow label directions.

 Dow AgroSciences  
**Team\* Pro**

\*Trademark of Dow AgroSciences LLC

Network. It's not pretty, but it works. This searchable database is designed to explain toxicological risk from pesticides in laymen's terms. The engine is being constructed by Extension toxicologists from the University of California at Davis, Cornell University, Oregon State University (it is housed on their servers), University of Idaho and Michigan State University.

You won't need a doctorate in soil science or toxicology to figure out the results of your searches on this engine. Plug in a simple brand name, such as Dyfonate, and EXTTOXNET returns a page listing the active ingredient. Click on the ingredient (fonofos, in this example) and you get a page with brand names, labeled uses, chemical class, formulation, regulatory status, toxicological and ecological effects, environmental fate, physical properties, manufacturer's contact information--all in plain English.

Other useful information on this site includes pesticide information profiles and toxicology information in brief, written in simple language.

**Texas Plant Disease Handbook**  
<http://cygnus.tamu.edu/Texlab/Lawns/lawq.html>

If you want to confirm that spot on the lawn you are working on is indeed brown patch, or if you just need a lawn and turfgrass disease refresher, look no further than the Texas Plant Disease Handbook. Part of a much larger index that also covers farm crops, ornamentals and trees, the Texas Plant Disease Handbook is the work of Texas A&M University.

Beginning on the left side of the page, users select the grass

(or host) species from a list of 10 warm- and cool-season grasses. They then select a causal agent, such as algal, fungal or nematodes, from a list of seven disease agents. There is also a keyword descriptor box for search terms, such as "root rot" or "wilt" on the far right.

The engine chugs a little bit and kicks out a page that has the name, a picture of what the disease looks like, a short text covering symptoms in both warm- and cool-season grasses and management/control techniques.

**Weed Science Society of America**

<http://ext.agn.uiuc.edu/wssa/>

We always knew there was a trade group for nearly everyone, right? Well, weed scientists have one now, and it is Weed Science Society of America.

"Members include academia and industry personnel from North America primarily and secondarily from around the world," said David Pike, WSSA's Webmaster. "We sponsor an annual meeting to promote research and scholarship in this area."

Maintained on the University of Illinois at Champaign-Urbana Extension Service Web server, WSSA's Web site is a virtual compendium of information about weeds and weed control.

WSSA's Web site has a photo database of more than 200 weeds, links to the federal noxious weed site, information about chemicals and various

search engines useful for identifying weeds.

One of the more interesting parts of this site is a genealogy chart for 18 weed control chemical



manufacturers. Even if you were never curious about who was merged and acquired to create such agri-industry giants as AgrEvo, this page will show you what happened to old vanished chemical giants like Mobay, Pennwalt and Ciba-Geigy.

Useful? Not really. Interesting maybe.

These folks have have pretty comprehensive links to pesticide safety pages, a list of herbicides and their chemical names and a page with links to federal agencies that regulate pesticide use. It also has a page listing Web sites for most of the herbicide manufacturers in the world.

**floridaturf**  
<http://www.floridaturf.com/>

Here's a site that is essentially a huge library of information on warm-season turf-grasses. Designed, built and maintained by Dr. Philip Busey, an associate professor of

environmental horticulture at the University of Florida at Fort Lauderdale, it was originally put up as a classroom site.

Busey, who has more than 20 years experience as a turf-grass researcher, said he created the site in late 1997. "After using two University servers to distribute class materials, I found it too difficult to post materials in a timely manner and (use a variety of Web tools)," he said.

He also never liked the length of the URLs he was assigned. So, he bought his distinctive domain name and pays \$20 a month to host it.

A small part of Busey's site is dedicated to showcasing Florida's turfgrass science program and projects at the Fort Lauderdale Research and Education Center. Students can find the curriculum, links to other classes, study guides at other universities and even old exams there.

The site features in-depth sections covering Bahia, St. Augustine, Bermuda and zoysia grasses. It also has a gigantic list of links, filed in intuitive, easy-to-follow categories.

Look for additional Web sites of interest to landscape and grounds professionals in future issues of Landscape Management. If you have one that you would like to see featured in LM's 'Surfin' Turf, please let us know at (440) 891-2636; fax, (440) 891-2683; e-mail, rhall@advanstar.com