"The fulcrum in our greens program"

"Rapid turf establishment and development on greens is absolutely essential in golf course construction. We used Floratine products as the fulcrum point in our greens program to accelerate plant maturation and soil conditioning. There is no doubt that our greens would not be as advanced or healthy if it were not for the help of our Floratine products. Floratine will continue to be an integral part of our fertility program."

Craig T. Fuller, Superintendent
Clover Valley Golf Club
Johnstown, Ohio
**Business briefs**

**Study shows pesticides break down quickly in turf**

The results of a three-year study show that high levels of organic matter and microbial activity in turfgrass help pesticides degrade faster than when applied to bare soil.

Bruce Branhann, associate professor of turf at the University of Illinois, conducted the study. His research focused on the dissipation of pesticides in turf settings vs. production agriculture, where chemicals are applied directly to the soil.

Branham says the half-life of many pesticides is dramatically reduced when the chemical is applied on dense, well-maintained turf.

**Quebec bans non-farm pesticides**

Quebec will ban the use of most non-farm pesticides by 2005. Quebec Environment Minister Andre Boisclair said the province will immediately move to ban the use of 30 highly noxious pesticides on public lands, including parks and schools. The ban will be extended to private and commercial lands by 2005, but pesticide use on agricultural land will not be affected.

**NGCOA, NGF announce results of rounds study**

The National Golf Course Owners Association and the National Golf Foundation recently released the results of their joint rounds played study. According to the results, 518 million rounds of golf were played in the United States at regulation facilities in 2001. All 15,720 U.S. facilities were invited to participate in the survey and data was received from 2,426, a response rate of 15 percent with a +/- 2% margin of error.

“*The new rounds report is good news for superintendents, and he says their feedback regarding Bayer AG’s acquisition of Aventis CropScience has been positive.*

Bayer AG’s long-awaited purchase of Aventis was finalized in early June. The deal led to the creation of Bayer CropScience, which is divided into three business groups — Bayer Environmental Science, Bayer Crop Protection, and Bayer BioScience. Weeks, who served as vice president of Aventis Environmental Science’s Chipco Professional Products group, is the new head of the professional products unit for Bayer Environmental Science in North America, based in Montvale, N.J.

“I received phone calls from superintendents who just felt the need to say something,” Weeks said. “In general, they asked what [the merger] means to them. What I said, and what we believe at Bayer, is that we’re still structured in a focused way to serve the specialty markets. We’re not an agricultural company providing products to the specialty markets. We’re a specialty company serving [superintendents and others].”

Bayer Environmental Science offers a line of herbicides, insecticides, nematicides and plant growth regulators. There’s been much speculation to what Bayer’s acquisition of Aventis will mean to superintendents, especially regarding fipronil. As part of the deal, the Federal Trade Commission required that Bayer divest two active ingredients — fipronil and acetamiprid — over the next several months. But Bayer Environmental Science will have the chance to license back fipronil rights for turf segments. “This will allow for the potential for a co-exclusive arrangement between Bayer and the new company that purchases the product,” Weeks says, adding there is “significant and vigorous interest” in the product, although he wouldn’t reveal what companies are interested.

Continued on facing page
Droughts have impacted many areas throughout the United States and Canada. We hear about ground water being depleted, wells going dry and rainfall amounts being dangerously below average. Many areas are experiencing rising temperatures and increasing sun and wind.

How do prolonged dry weather patterns affect soils? Under "normal" conditions, sufficient rainfall occurs to keep soils from becoming nonwettable. This residual moisture is enough to keep the organic coatings from drying out and becoming irreversibly hydrophobic.

With the current drought conditions and water restrictions in place over the past year, however, soils are getting less water less regularly and are drying out more often. As a result of this lessening hydration pattern, soils are becoming increasingly water-repellent.

Critical water content or critical moisture content is the point at which a soil transitions from being wettable to nonwettable. When a soil reaches this point, hot spots or water-repellent regions appear and will not wet. Water runs off the surface and little, if any, will penetrate the soil profile. While these hot spots show clear signs of hydrophobicity (water repellency), the green areas around the hot spots may appear to be fine. Don't be fooled, however. These soils are also hydrophobic but have not yet hit the critical water content point. If not treated, they will quickly become hot spots.

Soil surfactants have gained acceptance in the last decade as a tool for reducing water use while still keeping turf and landscapes healthy. But, like most turf-related products, surfactants may call for different rates and/or application practices when extreme weather conditions prevail. The longer drought conditions persist, the more organic coatings accumulate on the soil particles, causing a greater shift toward water-repellency. To combat this higher accumulation of hydrophobic material, higher rates or more frequent applications may be required.

When extreme water-repellent conditions are present, soil surfactant selection is critical. Not all surfactant types are formulated to address severe problems associated with water-repellency. Some are formulated to move water off the surface and into the soil. When dealing with season-long or longer-lasting surfactants, keep in mind that additional applications may be necessary under extremely dry conditions.

Use caution when applying soil surfactants at high, one-time rates during hot and dry conditions as some may have a tendency to burn.

Clifford is a communication specialist for Cherry Hill, N.J.-based Aquatrols.

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Quotable

"I went from speaking to Tiger Woods to getting engaged 45 minutes later. It was pretty overwhelming."
— Craig Currier, superintendent of all Bethpage State Park golf courses, on proposing to his girlfriend shortly after Woods won the U.S. Open on the Black Course. (GolfWorld)

"There's one thing that 21 years at the same facility gives you: increasingly short odds. Sooner or later, you're going to have that year that just stinks: the year of strange diseases, the year of dancing sugar plum fairies leaving their dastardly rings everywhere, the year of goosegrass and weird employees, the year of... well you get the picture."
— Mark Vaughn, certified superintendent of the Goodyear GC in Danville, Va., on that fateful year (Virginia Turfgrass Journal)
IT'S AN ENDURING SYMBOL OF FREEDOM.
BROWN PATCH AND...
FROM DOLLAR SPOT,
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Eagle® specialty fungicide provides long-term, systemic protection from the turf diseases that pose the greatest threat. And it's incredibly easy on turf. With Eagle, you can't lose.

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Off The Fringe

At Any Cost

PERENNIAL RYEGRASS, DESPITE A POSSIBLE PRICE INCREASE, IS STILL WORTH ITS WEIGHT IN GOLD

With the passage of the Plant Variety Protection Act (PVP) in 1970, private breeders began to improve turfgrasses in earnest. One of the easiest species to improve was turf-type perennial ryegrass because advances could be made each year through open pollination.

Turf characteristics, such as color and texture, were improved with each generation. The first major turf types to be improved were Manhattan (which evolved from a native clone discovered in New York's Central Park by Rutgers turf professor Reed Funk) and Pennfine ryegrass.

The increase of these finer, darker varieties literally gave birth to the overseeding market. Since most of the resort golf meccas were in warm-season areas, fine-leaf perennial became the winter cover of choice on top of the dormant bermuda. Closeness of cut, ball roll and ease of transition led to the growth of the fine leafs — from several million pounds in the early 1970s to several hundred million pounds in the 1990s.

Breeders not only improved color and texture. They also improved yields by selecting clones that developed the most seed florets. For instance, the Manhattan 4 perennial ryegrass that’s marketed today yields twice as much as the original Manhattan did in 1970. So even though a farmer is being paid the same price per pound for perennial ryegrass that he was paid in 1970, the only thing that’s saving him

Editor's note: Golfdom asked Turf Merchants Owner and President Steve Tubbs to provide his take on the status of turf-type perennial ryegrass in the industry. In the future, we’ll provide other supplier-written articles on various topics.

By Steve Tubbs

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Princess®77 rules the bermuda grass kingdom. It will cost you a fraction of what you'd pay for sod, and it's the first and only true hybrid bermuda grass available from seed. It's manageable at 3/16 inch, uses one third less water than the most widely used vegetative bermuda, loves the full sun yet excels in the shade and provides excellent spring density. Now that's ruling with authority.

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*Cynodon Dactylon*

**Plant Breeder:** Dr. Arden Baltensperger,
Experimental Designation - FMC 77

Certified **Princess '77** bermudagrass is the world's first dense, fine textured hybrid bermudagrass variety to be available in seeded form. **Princess '77** is a very dense, dark green, fine textured hybrid bermudagrass that can be established from seed. It is the product of two self-sterile clones that are established vegetatively in certified production fields. Rated #4 out of 29 seeded and vegetative varieties and #2 out of 18 varieties tested in the National Bermudagrass Test – 1997 (NTEP No. 01-5).

**Characteristics:**

- Higher overall turf quality than all commercial seeded varieties in U.S. and international tests
- Dark green color, medium fine leaf texture
- High leaf density
- Moderate spring green up and fall color retention
- Good drought tolerance
- Requires 29% less water than Tif 419
- Better divot recovery than Tif 419
- Excellent winter color retention

**Recommended Use:**
Golf Courses (fairways and tees), Sports Turf, Parks, Home Lawns

**Climatic Zones:** 8, 9, 10, 11, 12 (may not be adaptable to all areas within each climatic zone)

**Establishment & Maintenance:**
Under ideal conditions, germination may begin within 7 days. After 14 to 21 days for full germination. Mowing may begin when grass is 1/3 taller than desired mowing height. It is recommended that no more than 1/3 of the leaf blade be removed per mowing.

Winter overseeding may be done for year round green color, but is generally not recommended on turf less than 6 to 8 months old.

This is a dense hybrid – periodical verticutting may be required under high maintenance conditions.

**Seeding Rates:** All applications 1 to 2 lbs./1000 sq. ft.
Continued on page 16
now is this doubling in yield. Likewise, superintendents and other turf users are buying fine-leaf perennial at prices lower than what they paid in 1970. Could any superintendent name a single item that he or she buys for the course that was the same price 30 years ago?

Sadly, the advent of the new millennium brought overproduction of turf-type perennials and the supply was exaggerated by the AgriBioTech bankruptcy. Even though the company is gone, the acreage of grass production it planted was still in the ground and mostly without a home.

Now it appears that turf-type perennial ryegrass production has turned a corner. The 2001 crop, with 162,000 acres harvested, was the lowest the industry had seen since 1994. Projections for this year are smaller yet, with about 130,000 acres of production. This will bring us the smallest total crop in a decade and could lead to higher prices by as early as spring 2003.

With reduced carryover and average yields, supply could equal demand for the first time in many years. Should anything happen to the crop before harvest, we could even see a shortage of perennial since total supply would be less than normal demand. Last year's harvest produced a crop that was well below average and shortened the crop by at least 30 million pounds.

Additionally, many of the peripheral acres of production in southern Washington, eastern Oregon and off-shore (New Zealand, Australia) have been severely reduced or disappeared entirely. Europe is importing large quantities of Oregon-grown perennial ryegrass for the first time in many years. At current levels, perennial ryegrass prices are well below a grower's cost of production, and tens of thousands of acres have been plowed since 1999.

Yes, fine-leaf perennial ryegrass has been a tremendous boon for the golf industry over the years. Could you imagine what the Masters would be like every year if not for Oregon ryegrass?

At any price, turf-type perennial ryegrass beautifies any course that it graces. More importantly, it brings in the golfers who otherwise would be playing on brown, dormant bermuda.
Off The Fringe

**Business briefs**

Briefs continued from page 12

"Our industry for several reasons," said Mike Hughes, NGCOA's executive director. "It establishes a baseline measure of total rounds based on a large and representative number of facilities, and is based on actual numbers reported by operators and not by consumer estimates and recollections. From this baseline, we will be able to reliably measure the overall effectiveness of our initiatives to grow the game."

**EPA completes review**

The EPA released its Revised Organophosphate Pesticide (OP) Cumulative Risk Assessment and decided that only two out of the 30 pesticides evaluated posed any risk to human health.

EPA evaluated over 1,000 OP pesticide tolerances. The assessment was the first time the EPA has used a new method to assess the health risk of a class of pesticides.

**FarmLinks taking shape**

Construction is underway at FarmLinks, the 18-hole championship research and demonstration golf course being built by Pursell Technologies near Sylacauga, Ala. It's scheduled to open next spring.

"The purpose for the course is education," explained David Pursell, CEO of Pursell Technologies. "We will be educating ourselves through research, and superintendents will learn from our demonstrations, product tests and new management techniques we develop."

**Walden honored**

E-Z-Go Textron recently honored Chairman Emeritus L.T. Walden's 40 years of service with a special award presentation at the company's world headquarters in Augusta, Ga. Walden, who started as a car-body welder in 1962, was appointed president of the company in 1991. He served as president until 1999.

**Dakota accredited as USGA lab**

Grand Forks, N.D.-based Dakota Analytical was awarded accreditation to be a USGA certified laboratory from the American Association for Laboratory Accreditation.

**Divot Mix**

**MASSACHUSETTS ROCK BAND FOCUSES ON GOLF-RELATED TUNES**

By James E. Guyette

It has a good beat and is easy to dance to. On its way to the top of the charts — or at least it may be displayed on a few more pro shop counters — is the debut release from The Divots on Stiff Shaft records.

Entitled *Golfions*, the nine-track compact disc contains ditties that, not surprisingly, are about the game of golf. Sold on the Internet at [www.thedivots.com](http://www.thedivots.com) for $12, the disc represents the lifelong dreams of the three Divot Brothers, sort of.

"I was sleep deprived," explains David Divot, a.k.a. David Bethune of Danvers, Mass. The birth of a son granted him enough wakeful nights to conjure up a series of humorous song titles that struck a responsive chord with friends Dan Divot and John Divot, a.k.a. Dan Lundergan and John Collins. Long-time musicians, the three are also known as "golf junkies" in their neck of the woods.

With Bethune's lyrics, the trio collaborated on the music to flesh out an entire golf-oriented CD project. Bearing a professional sound throughout (all three are veterans of other band projects), the players recorded the disc at — where else — Bad Lie Studios in San Mateo, Calif., and Shag Bag Studios of Danvers. "We wanted to do something that would have us stand out from the norm," says Bethune. The Divots have succeeded. *Golfions* is pleasant to the ear while covering a number of musical genres, ranging from the punk-like thrash aggression of *Crashing Golf Carts*, to the tender love ballad *Driver*, to the mournful country lament of *Tee Ball Three* ("...Nothing is set in stone when you're on the tee alone/Nothing is a lock when your ball hits a rock...").

The Divots, who hold respectable positions as educators and software engineers, have not given up their day jobs to pursue a world tour with the Rolling Stones. In fact, they haven't had any gigs at all. "No one has asked us to play out yet," Bethune reports.

Not to worry: The band recently launched a national (and Canadian) push for the CD. The Divots plan to play at several golf industry trade shows and expand the number of golf course pro shops stocking the disc. Radio airplay is starting to happen, and several golfing television productions have used the songs as background music or expressed interest in other approaches to the material.

The trio promises to create even more of a buzz with *Golfions*, as they plan on mailing additional press packets to media giants or anyone else remotely interested in a collection of funny golf songs.