Whether it's excessive cold or heat, drought or too much rain, pests and disease, less than optimum soil conditions, or just too many rounds of golf — you need healthy turf to withstand the stress caused by these and many other adverse conditions.

Macro-Sorb® is an amino acid based, nutraceutical plant biostimulant that provides maximum resistance to adverse conditions by maintaining the photosynthetic activity which normally slows down during periods of stress.

The action of the amino acids stimulates the natural processes of the plant causing improved nutrient absorption and increased availability of the managing micro nutrients. By providing the same L-form amino acids a plant normally produces, Macro-Sorb® helps the plant retain the vital energy it needs to sustain growth while fighting the effects of adverse conditions.

Macro-Sorb® — a true systemic. It's new... it's unique... and nothing else works quite like it!

Macro-Sorb® truly can make the difference.

Geoffrey R. Blind
Golf Course Superintendent
Hillendale Country Club
Phoenix, Maryland

Call 1-800-925-5187 for more information.
Most of America’s golfers believe that golf course superintendents use pesticides and fertilizers responsibly, according to a new independent study commissioned by the Golf Course Superintendents Association of America.

The study, which was conducted by the National Golf Foundation at the GCSAA’s request, looked at the attitudes of a representative group of more than 1,000 golfers.

More than 80 percent of the golfers surveyed believe that superintendents are environmentally responsible and that they use chemicals and water wisely. Nearly two-thirds of golfers now believe that golf courses are good for the environment, up from just 55 percent less than two years ago.

“Golfers believe in the need to protect our environment,” says GCSAA president Bruce Williams.

RESULTS OF THE SURVEY:

How do you perceive the golf course superintendent at the course you play most frequently?

- facility managers: 56%
- skilled blue collar workers: 46%
- business people: 19%
- unskilled, uneducated workers: 2%
- don’t know: 4%

Describe the responsibilities of the golf course superintendent at the course you play most frequently:

- maintenance of the golf course: 88%
- environmental practices: 37%
- the landscaping: 22%
- greens mowing: 19%
- manage golf facility: 11%
- don’t know: 3%

Who is most responsible for the quality of the golf course you play most frequently?

- superintendent: 76%
- general manager: 7%
- club pro: 2%
- club manager: 2%
- don’t know: 13%

Who is best equipped to teach golfers ecology and conditioning of the golf course you play most frequently?

- superintendent: 62%
- professional: 20%
- club manager: 4%
- general manager: 2%
- don’t know: 12%

Have you ever supported an environmental conservation effort?

- Yes: 42%
- No: 39%
"They are very confident about superintendents' abilities to manage courses in an environmentally responsible manner. This study indicates attitudes are improving. Although it's impossible to say for sure, we'd like to think that educational efforts by the GCSAA, USGA and other golf associations have help to change misperceptions among players."

"Less than 10 percent of golfers recognize the name GCSAA," observes Richard Norton of the NGF. "But among those who recognize it, their view of the superintendent is much, much more positive. "People aware of the GCSAA are [also] much more favorably disposed to support the superintendent. And GCSAA affairs have a definite positive impact on attitudes among golfers."

Results of the image section of the study will be used to guide the GCSAA's public relations programs and to create a baseline to measure the success of future education efforts. "We're making a substantial investment in educational programs, including our TV show 'Par for the Course' on ESPN," says Williams. "We want to be able to track the effectiveness of our efforts to ensure we're doing the right things to raise the visibility of our members and enhance their image within golf."
Using a soft hammer to educate members

Each year when he meets his new greens committee, Keith Ihms schedules a “getting-acquainted” luncheon to discuss past and future maintenance activities. He follows the luncheon with a tour of his maintenance shop and introduces the committee to his staff, including “the guy who runs the weed eater.”

As golf course superintendent at Bent Tree Country Club just north of Dallas, Ihms embraces a grassroots approach to member relations. “Most of the time, members really want to help, but just don’t have the background to understand what we’re doing,” says Ihms, who’s been at Bent Tree two years. “By working up front with the committee and members, fewer people get aggravated. Since the committee changes each year, over a period of time a big percentage of the membership will be well-versed in maintenance procedures. My pro, David Price, is very supportive, too.”

Besides his monthly meetings with the greens committee, Ihms writes articles for the club newsletter explaining his activities and posts spray, trimming and fertilization schedules on the bulletin board near the pro shop.

He also uses posters available through the GCSAA to explain procedures such as aerification and overseeding, filling in the dates he plans to perform the tasks. “This way, no one gets embarrassed by bringing a guest to the club the day we aerify or the week we overseed,” Ihms notes.

Ihms supervises a summer staff of 22, including an assistant for the golf course and an assistant for the clubhouse landscape crew. In addition to a gardener, mechanic, spray technicians and irrigation technicians, he employs three “greens checkers” who do nothing but monitor water levels on greens seven days a week from June through September.

“It’s these kinds of specialized activities that most members don’t have any knowledge of,” Ihms notes. “That’s why an educational program is the best way to create a better relationship between club members and the maintenance staff. For the most part, my membership knows what we’re trying to do and how we’re doing it. They bring guests to the club at the times they know it will look and play its best.”

Disease woes

With water features on 80 percent of its holes, Bent Tree suffered from the dry weather of the summer of 1995. The course design by Dick Nugent features numerous lakes, five circulating fountains and two waterfalls. Its signature hole—number 14—is a stunning par three incorporating an elevated teeing area on top of a cliff overlooking a green that is surrounded by water. Though natural tributaries of White Rock Creek move through both the front and back nine holes, the course still buys city water to fill the supply lakes.

“We were able to keep the fountains and waterfalls running,” says Ihms. “But our disease pressure was pretty intense because of the weather. We’re on a preventive spray program on greens for both surface and root pythium, brown patch, leaf spot and dollar spot. Take-all patch has begun showing up on a few Dallas courses recently, too. So we stay on a
fungicide rotation from mid-June through mid-September.

Root pythium affected four of Bent Tree’s greens last year. The lab that made the diagnosis recommended a thorough drenching with Koban, with follow-up treatments of Fore and Aliette. Then a preventive regime of Banol was followed the rest of the year.

“Root pythium is just as devastating as surface pythium,” says Ihms. “It can be deceiving because you get thinning of turf in the summer anyway. But when you start losing color, too, you take notice. Root pythium can destroy large areas of turf very quickly.

“Once we had initial knockdown of the disease and began a beefed-up preventive program, we didn’t have a recurrence before the weather broke in September. When we aerify this spring, I’ll use a heavy rate of the Banol to clean up whatever disease may still be there.”

Fairy ring also affected small areas last summer. In the past, Ihms merely masked the circular patches of darker green turf by keeping fertility levels high and hand-watering the selected areas. But he tested ProStar fungicide under an Experimental Use Permit a few years ago and liked it.

“We solid-tine aerified the areas affected with fairy ring...before using ProStar...to make sure we got good contact with the diseased tissue,” says Ihms. “Then we used a wetting agent to get the product flushed into the ground; that’s the real key. Fairy ring no longer causes major problems for us.”

Lots of turf aerification

In addition to solid-tine aerifying selected areas, Ihms core-aerifies greens twice a year and uses a Toro Hydroject biweekly during the summer months. This year, he plans to employ a deep-drill aerification unit to enhance root development with less disruption to the turf. Though six greens were rebuilt to USGA specs in 1992, the rest are the original greens built in 1972. Compaction concerns led Ihms to find an alternative aerification method.

In general, though, Ihms follows an IPM approach. He monitors insect populations until they reach high levels before treating. He also maps grub populations, treating only those areas with known infestations. For weed control, Ihms plans to switch to a post-emergence program once he becomes familiar with which areas of the course have specific problems.

“Even our fungicide program is an IPM approach. We don’t start until weather conditions dictate disease pressure, and then we only spray every 7 to 10 days. Plus, we use a curative spray program the rest of the year. We also use a slow-release nitrogen fertilizer, which promotes microbial activity and allows us to make fewer applications.”

Waiting out the weather

By March 25th, Ihms was getting the greens ready for the aerification/soil amendment program. He wants 60 days of root development before the summer heat kicks in.

“We’ve had some cold weather that’s delayed our deep-drill aerification,” Ihms reports. “We didn’t want to drill when the weather was uncertain. We might not have been able to fill in the holes quick enough. We want to let the cold spells blow through and then go in with soil amendment products. The deep-drill will also help the greens to percolate.”

Ihms also plans to flush excess sodium out of the greens with a granulated gypsum product.

“The gypsum can help decrease the base saturation rate, as it allows sodium particles to break off and flush through,” says Ihms. “It’s critical here, with the water quality, and it’s been dry weather over the summer (of 1995) fall and winter.”

As a final preparatory step, Ihms wants to steady the soil’s calcium-to-magnesium ratio.

“We’re trying real hard to get the calcium/magnesium ratio to where it should be, which is 8:1,” Ihms explains. To do that, he uses a product called Sul-Po-Mag.

“We’re trying to keep base saturation for sodium below two percent. We’re at 1.5 percent right now,” Ihms says.
Golf course debate goes by the book

by TERRY McIVER / Managing Editor

The common bond at the GCSAA Environmental Forum in Orlando was the understanding that there is a right way and a wrong way to manage a golf course. No blood was drawn, and no one changed his mind, but it was an interesting evening nonetheless.

The debate over the relative environmental value of a golf course—moderated by TV's professional "man-in-the-middle," Arthur Miller—was a highlight of the association's annual conference Feb. 5-11.

During the forum, a nine-man panel made up of environmentalists, university professors, golf course superintendents and a golf course designer went back and forth for 90 minutes over the pros and cons of golf. Each panelist made a point, and some points were made often, especially the belief that superintendents are genuine environmentalists.

Golf is not a game

"It's a job of challenges," said Tim Hiers, CGCS, manager of Colliers Reserve in Naples, Fla. "You work with nature, but it's difficult to deal with the perceptions of people who don't understand our business. If you see what golf courses are doing around the country, you'd change your mind about golf being bad for the environment."

"Keep in mind that there are genuine water, fertilizer and resource management concerns," countered Curt Spalding of Save the Bay, Providence, R.I., whose main concern was that many superintendents—such as those in his state—can be better stewards and more responsive to an inquiring, concerned public.

"Not everyone is going to be a national award winner," agreed Spalding. "They don't have the resources to do it or the aptitude to do it. But certainly everyone can do better than they're doing now. You can save money, use less pesticides, use less water; and that's going to make your profit margin better."

"Most superintendents are already resource managers," countered Hiers, "and they care deeply about the environment. They're also business people. They have to account for every penny. To say it's an exceptional few [who are good stewards] is not accurate. Most people don't stay around long if they've got dead fish, dead birds or something's over budget."

No more courses!

Sierra Club spokesman Mark Massara said he would like to see at least a temporary moratorium on all golf course construction.

"From the lay perspective, the legacy of golfing in the United States is one of agricultural conversion, real estate speculation, destruction of wildlife habitat, loss of water quality and wetlands, and massive bird kills," asserted Massara. "Do we really want to concentrate on building new and better and more environmentally-sensitive golf courses," asked Massara, "or should we go to work on the 17,000 that exist already and try to improve them?"

"The golf course is a symbol of population growth that's easy to attack," replied Hurdzan. "If we use emotional arguments to try to deny the expansion of a golf course, maybe they won't build that extra road, or urban area [to go along with the course]."

According to Hurdzan, golf courses probably represent less than one or two percent of the entire landscaped area in the U.S., "and they're managed by college-educated professionals who are devoting their lives to a safe environment." LM