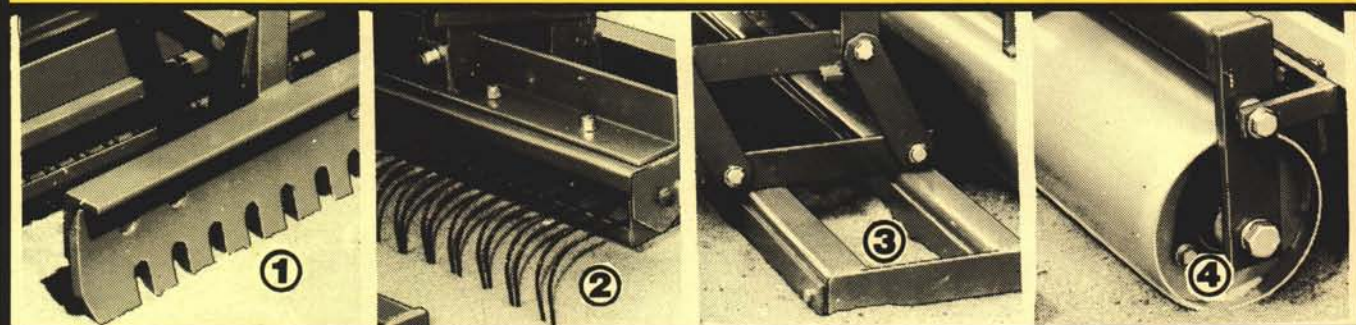


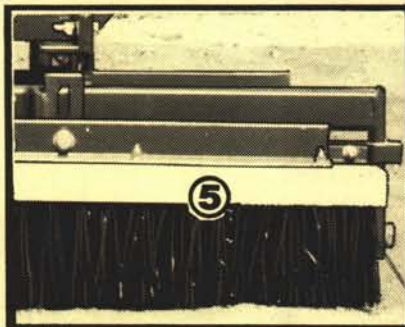


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## Mowing Units Maintenance Checklist

- Clean mower decks thoroughly on both ride-on and walk-behind rotary mowers.
- Repair nicks and chips and replace any damaged guards or shields on the mower deck.
- Sharpen mower blades and, if possible, sharpen a back-up set of blades for each mower. It's especially important that the final cut of the season be made with freshly sharpened blades.
- Adjust mowing heights for both cool- and warm-season turf and make sure mower deck height-adjustment devices are operating properly and easily.
- Readjust mower decks, leveling them properly from side-to-side and front-to-back.

unit's next regular service interval; and others might even be postponed until the end of the active work season for that machine. Following this schedule, technicians can order parts to have on hand, ready to use, when services will be performed, further eliminating delays.

Once the maintenance schedules are set, they can, and *should*, be communicated to the operators. Crew member cooperation will greatly increase when they realize their input is valued and their job performance is important enough to the facility to keep their equipment in top working condition.

Preventive maintenance pays. Those little things you don't do when they first need attention can turn into the big things that eat big holes in your budget. It pays other dividends, too.

Studies have shown that superior performance comes from operators on "superior" (well-maintained) machines.

## Aerators and Dethatchers Maintenance Checklist

- Examine walk-behind aerators and dethatchers to ensure the power units are operating properly. Perform preventive maintenance procedures as outlined above for power units.
- On walk-behind, pull-behind or ride-on units, make sure all belts and chains are in good shape and that all moving parts are properly lubricated.
- Be sure height- and spacing-adjustment devices are operating properly and easily.
- Check the "rotors" on dethatching units. Replace any worn or broken rotors and make sure they are set at the proper depth.
- Examine the tines, spoons or spikes on aeration units, replacing any that are worn or damaged.

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Take an operator off a "junkier" and give him or her a good-looking, well-functioning machine and efficiency levels and

pride of performance both rise. Well-maintained machines merit more careful handling and receive better care from operators, thus performing longer with greater efficiency.

### Watch the Basics

On all equipment, use the operators manual for each machine as the maintenance guide. Shorten maintenance intervals to compensate for such operating conditions as dusty, new construction; sandy soils; or excessive rains. Ensure that all safety guards and shields are in place and that all safety devices are operating properly.

### Comply with Regulations

Examine the equipment maintenance area to ensure that all procedures comply with government regulations. Check storage practices. Review proper disposal of gas, oil, antifreeze, chemical containers and rinsate with all personnel. Make sure posting of all regulations, informational materials and warnings is up to date. □

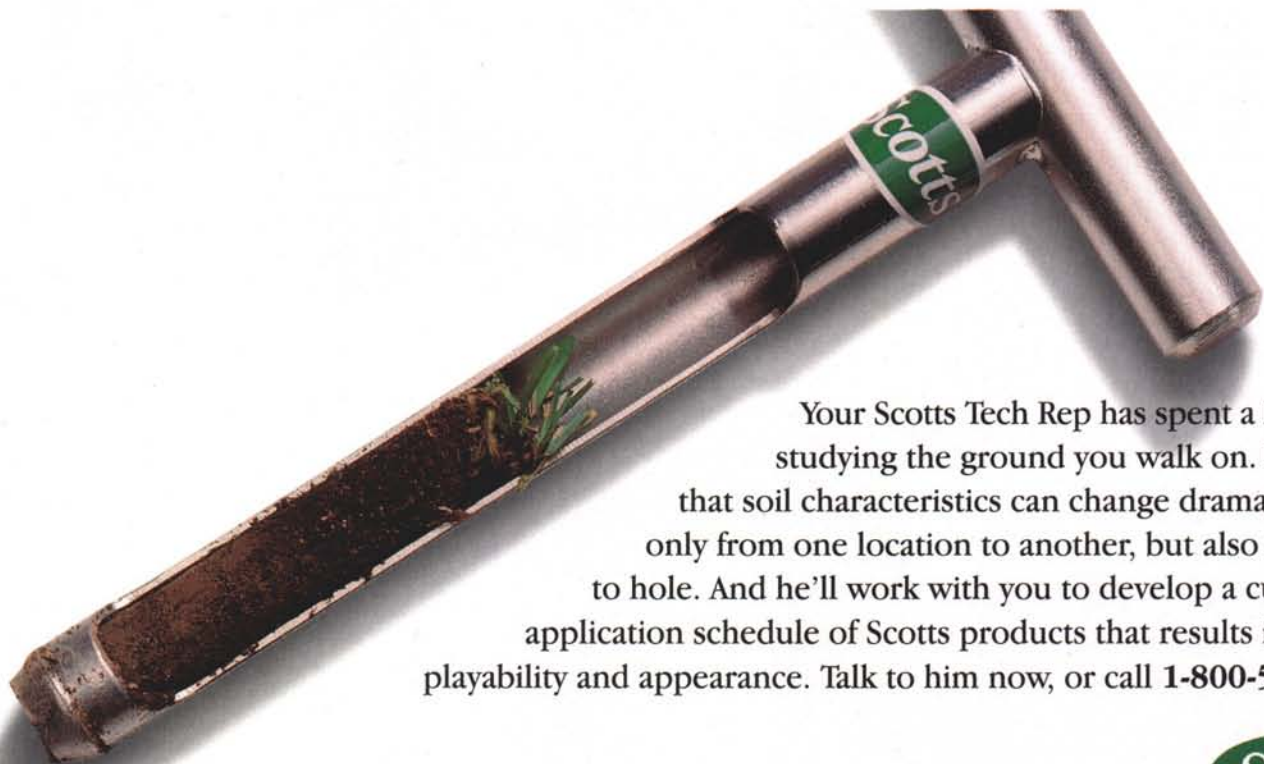
*Eli Luster is supervisor of Golf & Turf Market Development Field Support for John Deere worldwide, including field service and the computer and phone technical service network. He's based at John Deere's Horicon, Wis., facility.*

## Sprayers Maintenance Checklist

- Perform preventive maintenance on spray units according to manufacturers' recommendations.
- Check for external damage and for internal damage to lines, booms or nozzles from abrasive materials.
- Clean units thoroughly.
- Make sure firing speeds are consistent and that the proper type nozzles are in place.
- Conduct the standard pre-season check on equality of nozzle output and uniformity of spray patterns.
- Perform all manufacturer recommended service on high pressure, subsurface injection units.

## Attachments Maintenance Checklist

- Check over attachments thoroughly, including the power units, and perform all recommended service maintenance.
- Examine wear points and ground contact points closely. Replace all worn or damaged parts.
- Make sure shear bolts have been used to replace damaged or missing shear bolts.
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# Funding Fields for Fun, Profit – and Survival!

By Mike Schiller

Sports turf management isn't simply a nice "sideline," one of those warm, fuzzy "feel good" programs that facilities, educational entities and governmental agencies tack on to their budgets when funds are available. Sports turf management is vital to the preservation of athletic field resources and the well-being of the humans who use those fields. It deserves adequate funding, and here are just a few of the reasons.

## Sports and Lifestyle

It's scientifically proven that physical activity is closely linked to health of body and mind. Exercise helps the human body function more efficiently, increases muscle mass and strength, and aids in weight control. It triggers reactions in the brain that reduce stress and elevate the spirit.



---

**Adequately funded fields yield many benefits. Poorly funded fields can contribute to injuries of athletes and increase the risk of lawsuits.**

Many adults are choosing participation in one or more sports as the preferred method of physical activity for themselves and their children. People begin their participation in such team sports as soccer, baseball and softball at ever younger ages and continue as active players for decades. Life-long involvement in a sport frequently is the goal, and often is the reality.

Sports participation by women and girls is increasing at all levels. Title IX of the Federal Education Amendments Act became law in 1972 with compliance required in 1978. A *Time* magazine article, "A Level Playing Field for

*continued on page 36*

# What I Did Last Summer..

by John L. Mower



Thanks to my very loud , I got up. It was a sunny morning and I had

planned to spend some time on the lake catching , but I



had a major problem in the yard. The trees were growing nicely,



but the bermudagrass was not. It looked as if we had been watering with

a very small ! Summer was slipping ( ) away and the stress



was mounting. Obviously, it was a growing problem so I began to



in-depth clues.



Then, I had a very idea. I hurried right to the



, the bermudagrass experts. Their great selection of CERTIFIED

bermudagrasses gave me exactly what I needed. They told me about

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brand bermudagrass and that I could have a denser, darker

and finer textured . Soon, everything was just . I even had time



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**Funding**

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Women," in the May 5, 1997, issue refers to Title IX as "one of the most important pieces of social legislation ever enacted." According to data in the article, the number of women participating in intercollegiate athletics has grown from 31,000 in 1972 to more

than 120,000. At the high school level, the number of female athletes has ballooned from 294,000 in 1971 to 2.4 million in 1995. While the current figure for male high school athletes remains close to 1971 figures, it's impressive at approximately 3.6 million.

Granted, not all those athletes play on turf fields, but not all those active-

ly engaged in turf-field sports are counted among a school's "competition" athletes. Intramural sports and league play through baseball, softball and soccer associations further swell the number of players.

And those numbers will continue to increase, spurred by the joy of the game, the potential for scholarships and the ever-expanding television coverage of sporting events, including the victories of U.S. men's and women's teams in international competition.

Participation in team sports helps children and adults alike improve cognitive and motor skills and such interpersonal interactions as cooperation and communication. It promotes personal responsibility and the ability to function effectively within a group. It helps individuals grow in self esteem. Team members make lasting friendships. Plus, team sports can be lots of fun.

It's no wonder that access to athletic fields has become a quality-of-life issue for much of the world's population.

**Safety**

If a goal of sports is to promote health, athletes deserve the opportunity to compete safely. While properly constructed and well-maintained turf fields can't guarantee protection from injury, they do lessen the probability.

Sports turf managers can't produce "perfect" fields 100 percent of the time: far too many variables exist. But trained sports turf managers can produce fields that reach the highest levels of playability given the construction parameters of the field; resources in materials, time and labor available; previous and current weather conditions; and level of field use.

To do so, sports turf managers need help. If weather and field-use levels combine to make a field temporarily unfit for play, the sports turf manager needs the authority to suspend play to avoid turf damage that requires extensive, expensive repairs and — more importantly — to save athletes the risk of injury. To revive an overworked field and keep it playable and safe, they need the time and funds for such maintenance procedures as aeration, topdressing, overseeding, fertilization and irrigation.

Ignoring these requirements for safe field conditions exposes a facility to liability. If an athlete is injured and sues, a court will require the facility to show that its care of the field has been



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guard against injury by creating a uniform playing surface that is as safe as it is attractive.

As if that's not enough, Lofts' seasoned agronomists are always available to make recommendations and offer technical advice. And our distribution network stretches from coast to coast, providing excellent service.

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**Funding**

*continued from page 36*

“reasonable” and “prudent” — key legal standards in issues of liability.

Facilities that strive for the best possible maintenance standards given their specific circumstances, and that document their efforts completely, generally lessen their exposure to liability. A few dollars spent on maintenance can save many dollars spent in court.

**Playability**

Professional athletes compete on highly playable, highly maintained turf fields, and they deserve nothing less.

The issue is: What level of playability do amateur athletes deserve? Some athletes reach their highest competitive levels in youth association sports, others in high school or college games. Are these players any less deserving than the pros? Every athlete deserves the opportunity to play the game to the best of his or her ability.

Programs that recognize this and allocate adequate funding can — and do — produce superior fields, such as

the youth baseball fields at Disney's Wide World of Sports complex and STMA's municipal, high school and college Fields of the Year. Field construction details, budgets and staffing levels vary greatly among those facilities, but the commitment to excellence within the realities of the circumstances remains the same.

**The Business of Sports**

Sports are big business. Professional teams cost millions of dollars to manage, and generate millions of dollars in profits. Successful university-level teams generate funds to support themselves and many less-popular athletic programs at the school. On-site spectators increase the profits of area businesses. Televised games generate funds for the teams, the TV networks and the companies that advertise during games.

While most people acknowledge and understand these business aspects of high-profile sports, the positive impact of sports facilities at the community level is frequently overlooked. The dollar volume generated by local and

regional games and tournaments from youth through senior sports may be smaller, but it's certainly significant income for facility owners and area businesses. Companies that provide sports-related goods and services benefit from all levels of this activity.

Quality-of-life issues enter as well. The entire community benefits from the aesthetic appeal and positive environmental impact of high-quality athletic facilities ranging from a city's premium stadium to the well-maintained softball complexes in community parks and the soccer fields at elementary schools.

Because of all the issues involved, the term “adequate funding” must come under scrutiny. Facilities that recognize the importance of good field maintenance are more likely to define “adequate funding” as what it takes to do the job right, and they will find innovative ways to generate the resources needed. □

*Mike Schiller is superintendent of parks for Rolling Meadows Park District, Rolling Meadows, Ill., and president of the national Sports Turf Managers Association.*



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## Chandler Arizona Parks Department Chandler, Arizona



**C**handler Arizona selected Primavera bermudagrass for all fifteen of the new soccer fields they seeded in 1994 and 1995. In addition, they are using Primavera on all the city parks and grounds.

According to Kris Kircher, maintenance coordinator, they have used common bermudagrass before but had problems with allergic reactions among the players. Then they tried Mid-iron bermudagrass but it was very susceptible to pearl scale. The third variety they tested was Primavera. Kris was really impressed with its quick germination and establishment. It stayed greener longer in the fall and greened-up earlier in the spring than any of the other seeded types they tested. Primavera also was resistant to pearl scale, so their problems were solved.

Kris, and his crew of four, were able to convert old cattle corrals to excellent quality soccer fields. The San Tan Soccer Association plays on the fields nine months out of the year, and with the use by other groups, there are soccer games almost every day of the week throughout the entire season. The quality of the playing surface is excellent throughout the year. The number of injuries and loss of players have been greatly reduced with the dense turf they are able to produce with Primavera. It has been stated by numerous authorities that Chandler has the best soccer fields in the Phoenix area.

The work done by Kris and his crew is impressive, especially when one realizes that it was done on a minimum budget.

“Primavera is a high quality, lower cost alternative to the standard turf varieties sold only in sod or stolon forms.” *Kris Kircher, Maintenance Coordinator*

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# APPLICATOR'S LOG

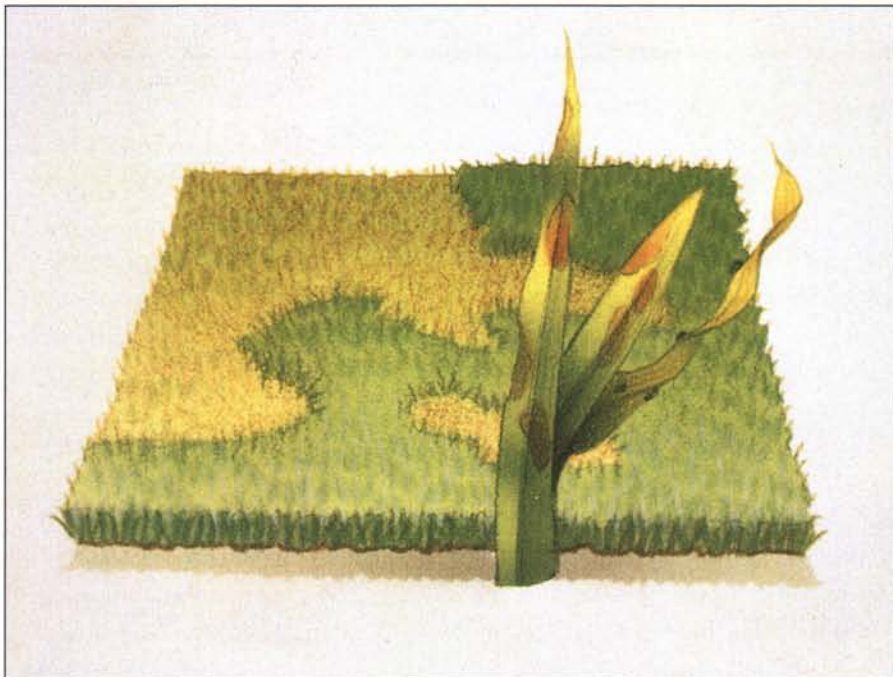
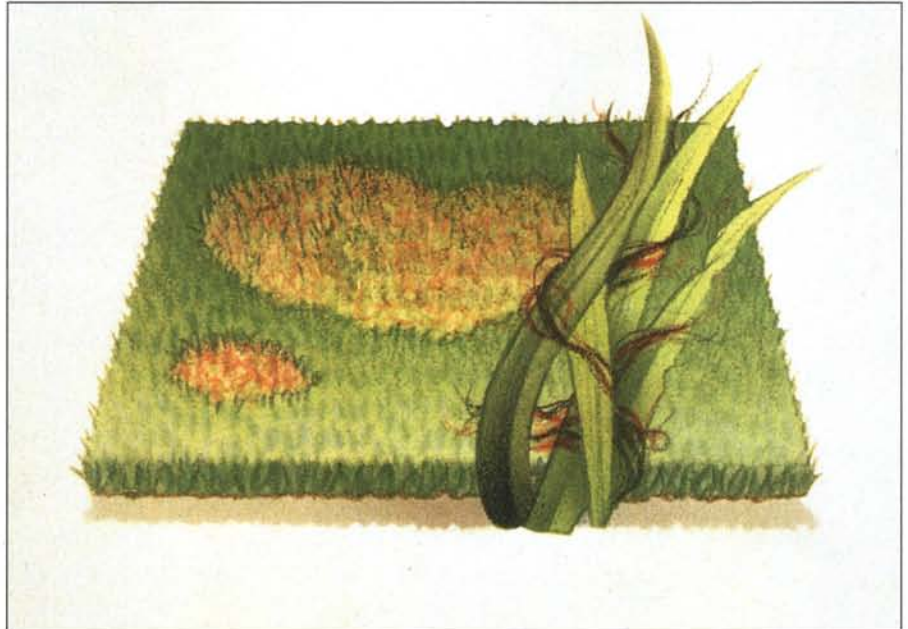
## Disease Diagnosis - An IPM Approach

By Art Bruneau and David Bishop

Correct diagnosis of turf problems is essential to assure that effective, economical control measures are employed. Diagnosis can be defined as the investigation into the nature of a problem — the causes of which are many and varied. Rapid, correct diagnosis can mean the difference between success and failure.

A turf manager must be a good diagnostician. Besides common sense and good judgment, effective diagnostics requires:

- a basic knowledge of turfgrass species and their major pests;
- the ability to look, listen and ask pertinent questions;
- the use of all available resources — which come in the form of accurate and timely records, past experiences, peers and turf specialists, and available pub-



lications. Workshops, clinics, field trips and conferences are also excellent means of keeping abreast of the latest developments in the industry.

### Basic Information

Regardless of the problem at hand,

certain basic information must be available to the turf manager in order to make a correct diagnosis. The following are five things each turf manager should consider. Addressing these considerations prior to the onset of field problems will prevent or substan-

**A knowledge of the signs and the symptoms of diseases cannot be overemphasized. For instance, perennial ryegrass is a susceptible host to both anthracnose (left) and red thread (above), but a close examination of the symptoms can distinguish between the two pathogens. Photos courtesy: Dow Elanco.**

tially reduce potential turf problems and allow for more correct diagnosis should a problem arise.

1. Study the *turfgrass* being maintained and become familiar with its strengths, weaknesses and requirements. Know what the turf should look like when healthy. This will make it easier to note problems and symptoms. Knowledge of the host plant will help the turf manager in keying on its major turf pests.

2. Become familiar with the *environment* in which the turf is being grown and how the host plant and major pests will react in such an environment. Location of trees and shrubs (landscape design) influences the micro-environment. For example, powdery mildew is often associated with shade. Take note of specific