"Each additional inch of cut saves three minutes."

— Melka

hours to mow a group of fields, a 60-inch mower will take six hours to mow the same fields. If the 60-inch mower mows every day, with one additional hour required per day at a labor rate of \$10 an hour, it costs \$3,650 more in labor annually to operate the 60-inch

mower compared to the 72inch mower.

"Labor is a good way to look at it," agrees Anderson. "Labor is the numberone cost."

He notes that a lot of schools and cities are tax-supported. "When the economy is not doing as well as it could, turf maintenance suffers. It is not as essential as police or fire.

There is pressure for the same number of people to do more."

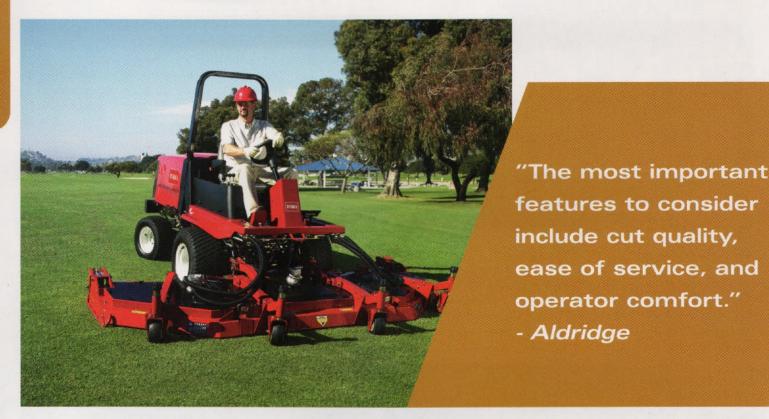
While acknowledging that big mowers cover the most ground, Anderson suggests thinking about having two separate crews with two kinds of mowers. "Consider a trim crew with a 5- or 6foot mower to work around trees or tight areas and another crew with 11- or 16-foot mowers to do the larger, open areas."

"It is important to note however, that productivity should not be the only consideration of mower deck size," Aldridge says. "Maneuverability and cut quality must to be taken into consideration as well." A wider mower doesn't necessarily mean more productivity and less labor costs. Cut quality normally suffers with faster speeds, and turning ability on narrower machines normally makes up some of the productivity gap.

"If it's a simple question of acres per hour, then there is a strong business case to buy the biggest equipment you can afford," says Brian Melka, director of product management at Jacobsen.

A 16-acre per shift machine will not cost anywhere near 60% more than a 10-acre machine. Melka compares their 11-foot 5111





to their 16-foot 9016. "Each additional inch of cut saves three minutes," he says. A typical municipality cutting 100 acres will save three hours a day, reducing mowing time from nine hours to six.

"However," Melka admits, "most times you are not cutting long, flat, open fields where a big mower is most efficient. If you have a lot of turns or obstacles, like around soccer fields and goals, you can spend as much time turning as cutting. In that case, look at a quick-turn machine that gets back to cutting quickly."

What is the break-even point for a mower purchase? "We believe this is determined by each unique customer and don't think there's a general rule that can be applied across the board," says Aldridge.

#### Three key features

If you want to get turf managers arguing, ask them what they feel are the three most important features to assess when buying a new machine.

"This varies by customer needs and applications, but John Deere believes the most important features to consider include cut quality, ease of service, and operator comfort," says Aldridge. No one wants a mower that gets the job accomplished quickly, but does not cut the grass properly. And, while not everyone needs or wants the perfect stand of grass, they don't want an objectionable cut quality either.

Melka says the first thing he would look at is the dealer's maintenance and service skills. "You are spending \$10,000 to \$100,000, but the best machine is no good if it is sitting in the barn."

Second, he says, is to know your application. "If you're mowing flat ground, you don't need a high-hp, 4-WD machine," he says. "But if you are at high altitude you may need a turbo booster or more power. Write down what you need before you shop," he advises.

Third, define the surface finish required. "If you are cutting at one inch or less, a reel mower will always do a better job. A rotary, like our AR5, will do a fine job, but it is intended for cuts over an inch."

The Cal Ripken group, for example, uses their 1880s and TriKings. The 1880s are a fairway mower with five reels – but, at 80 inches, is narrower, more maneuverable and lighter so has less compaction. They use a TurfCat 6-foot out-front rotary mower for the surrounds.

"The decision between reel and rotary comes down to quality of cut," he continues. "Reel mowers offer superior cut quality and are used on most higher-end facilities. Rotary mowers generally require less maintenance and adjustments. This decision is based entirely on what quality the facility expects and whether there are qualified technicians on staff to handle proper maintenance."

Anderson notes that requirements will vary with terrain and with labor availability. "With 16 feet of cut, you can mow 15 acres an hour," he says. "But can you really afford to get rid of labor?"

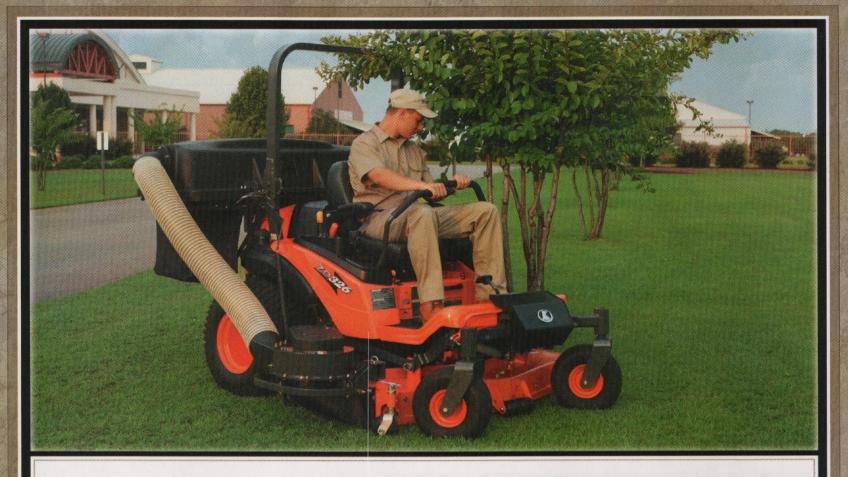
There are compromises. A unit like their GroundsMaster 4000, an 11-foot mower, is great for larger areas. However, it has side decks that can be raised to allow the mower to work into tight places.

Be sure the operator lowers the deck when back out on the big areas, Anderson says. Otherwise, it will cost productivity.

#### Running economically

Productivity suffers with machines that are consistently in the shop for repair so managers should look for a machine that's durable and easy to service. "At John Deere, we understand that optimizing machine uptime means greater productivity, and ultimately higher turf quality," Aldridge says.

"Every machine requires some level of reg-



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#### Buying vs. leasing?

Everyone loves new equipment. But the boss gets grumpy when asked to pay for it. What finance options should one consider?

"A first step is to define the strategy for each piece of equipment," advises Rhonda Flanery, manager of sales and marketing, Golf & Turf Leasing, John Deere Credit. "Is the goal to own the equipment or to replace it frequently?

"A facility may have a different strategy for each category of equipment, or even each unit," she says.

Brian Melka, director of product management at Jacobsen agrees that all options should be considered. He says a good salesperson will walk through an operation, looking at requirements – acres moved, quality of cut, personnel on hand.

Cash flow considerations then come into play. There are several finance tools available to address such concerns for sports turf facilities. For example for municipalities, Flanery says, John Deere Credit offers a municipal lease that spreads payments over a specified term (as much as 60 months), with ownership of the equipment resulting at the end of the lease.

"Some customers can make the most of their budgets by selecting our operating lease for equipment that is slated for frequent replacement (every three or four years)," she says.

On the other hand, equipment that isn't replaced as often is generally well suited for a lease-purchase (or \$1 buy-out lease).

When it comes to the leasing vs. buying decision, it's critical for sports turf managers to turn to local experts. Each field, fleet of equipment, and operator is unique. There simply isn't a "one size fits all" approach to this decision. Rather, determine needs, consult with experts, and seek acquisition solutions tailored to a specific situation.

"In many situations, spreading payments over a longer term tends to suit cash flow-conscious operations better than a capital expenditure," Flanery says.

When is it time to change out equipment? "When the continuing preventive maintenance is more expensive than the ownership cost," Melka says.

Chris Harrison is a veteran free lance writer who specializes in turf topics.

# John Mascaro's Photo Quiz

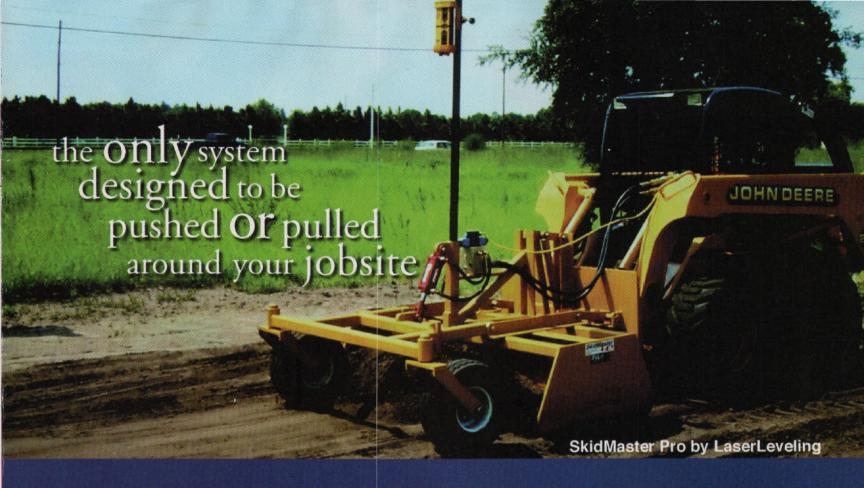
# Can you identify this sports turf problem?

Problem: Soccer goals are not in correct position Turfgrass Area: Soccer Field Location: St. Louis, Missouri Grass Variety: Astroturf

Answer to John Mascaro's Photo Quiz on Page 33

John Mascaro is President of Turf-Tec International

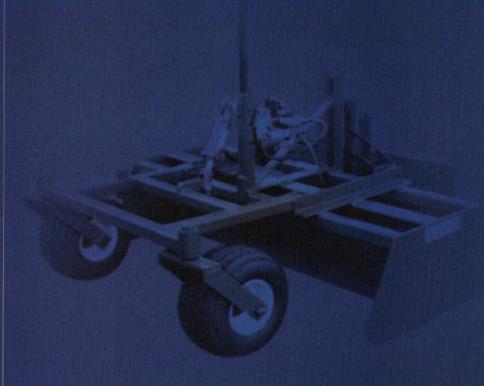


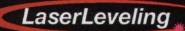


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ular maintenance, whether it is greasing, changing the engine oil, or sharpening blades. Greater productivity is achieved by machines that are easy to service with convenient service access points. On some Deere products, all daily service checks are located on one side of the machine," he notes.

With operators spending so much time on these machines, comfort is not only personally important, but should also be considered from a productivity perspective. A comfortable operator is a more productive operator. When purchasing new equipment, buyers should look for a comfortable seat, seat adjustments and other features that provide an ergonomically focused ride.

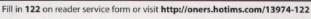
Consider electric, Melka says. When it comes to fuel savings and lower operating cost, he says electrically powered or hybrid technology is the way to go. Although most electrics and hybrids are smaller units today, he sees the technology moving up to larger equipment.

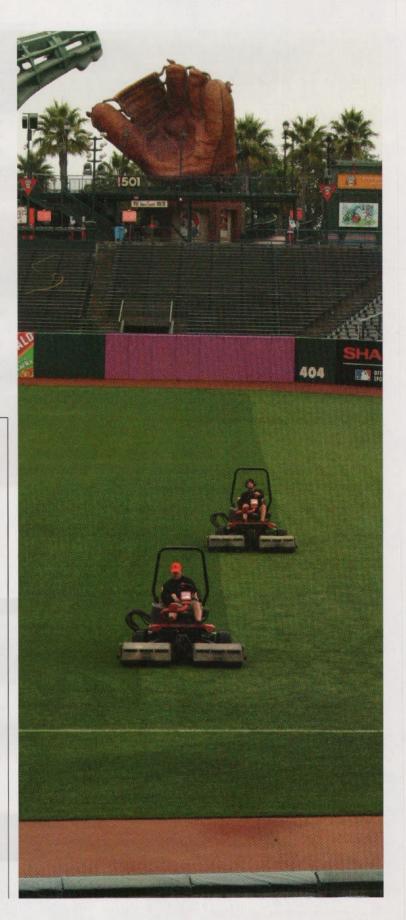
"Fuel savings are huge," he says. "We see a 50% to 70% reduction in fuel consumption.

Toro is also looking at alternative fuel units, including hybrids and hydrogen fuel cells.

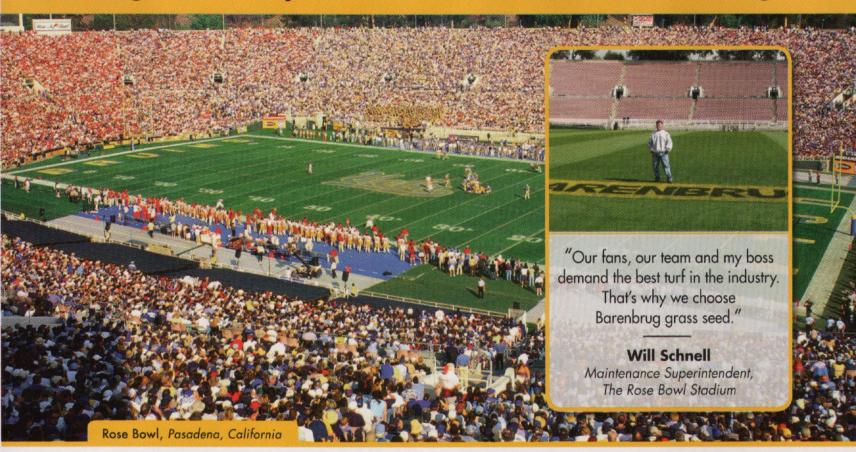
There are labor saving technologies in the offing, too. Toro is working on more sophisticated diagnostics for some of its larger machines. That promises to reduce the time spent testing and searching for maintenance issues and getting the equipment back to work faster.







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# LATEST DEVELOPMENTS in soil amendments

Editor's note: Following is some product news provided by several manufacturers of soil amendments used by sports turf managers.

aving the game"

"Saving the Game" is the guiding philosophy of PRO-FILE Products LLC's Turface Athletics. It's a philosophy that focuses on keeping fields playable and players safe no matter what the weather conditions may be. Turface Athletics exemplifies this commitment through its products and educational outreach, which includes Field & Fairway Emerald soil amendment, Profile's newly acquired DryJect aeration service, and Keep America Playing field education program.

Field & Fairway Emerald is the first product designed for turf applications to absorb water and keep fields dry, turning wet, muddy fields into safe, playable surfaces. When rain is forecast, groundskeepers can proactively apply a topdressing of this product to prevent muddy, wet conditions and extensive wear and tear.

To combat standing water and mud, pour the product directly onto areas such as field benches and on worn areas between the hashes or in goalmouths. The product instantly absorbs the excess water, making the surface dry and safe. The medium-sized, porous ceramic soil amendment is specially designed for turf and for use on fields constructed with native soil. Field & Fairway Emerald's green color disguises worn areas until new turf grows back.

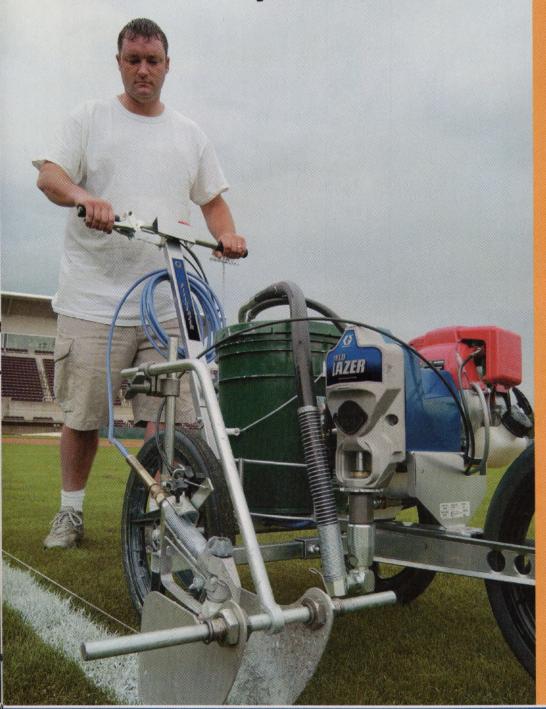
The DryJect service is a franchise-operated service that injects soil amendments into the soil while aerating grass fields. The patented technology uses water to fracture the soil while simultaneously injecting large volumes of dry material. DryJect aerates, topdresses, and amends in one pass, leaving behind a smooth, playable surface free of cores.

When incorporated into the rootzone using the DryJect aeration system, Profile Field & Fairway fills the DryJect holes completely, providing channels for water to drain. This provides a permanent balance of air and water space, which increases drainage and prevents muddy conditions that destroy turf. Using Field & Fairway with the DryJect system also allows you to prevent compaction throughout the year with-



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## FIELD SCIENCE

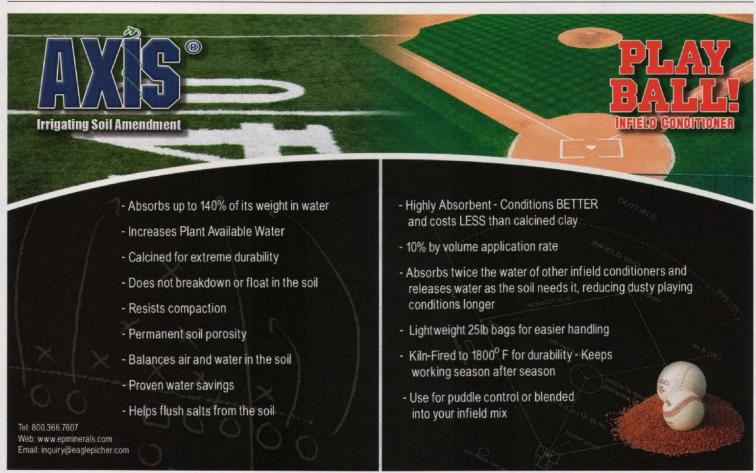
out causing undue stress during the hot, busy season or in preparation for heavy fall traffic.

Turface Athletics is also helping schools and communities across the country improve their fields through its new program, Keep America Playing. Keep America Playing is a nationwide, educational initiative that offers instruction on best practices in constructing and maintaining sports fields. It provides extensive turf care education to assist turf managers, coaches, athletic directors, and parent volunteers in improving their fields. For complete information on Keep America Playing and to find out where national and regional events are being held, visit www.keepamericaplaying.com.

#### Product durability is important

All groundskeepers want healthy turf that can stand up to heavy use, remains firm and playable in wet or dry conditions, and thrives on less water. Just as successful sports teams are built on solid fundamental skills, outstanding sports fields must start with optimal soils. All





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