

# How much **MOWER** can you afford?

By Chris Harrison

**W**hether yours is an upper-end professional stadium or a city park program, the one piece of equipment that is used daily is the mower.

While the basic job of any mower still is cutting grass, units have become more sophisticated and offer more features than ever. The question is: how much mower can your operation afford?

That requires answers to such factors as the required quality of cut, number of square feet

or acres mowed daily, and — always — the budget provided from upstairs.

“You have to look at your property first — what kind of turf you are maintaining, the quality requirements, the number of people you have to do the job,” says Christopher Anderson, associate marketing manager for rotary mowers in Toro’s Commercial Division.

Productivity is a function of a variety of factors, primarily determined by width of cut and speed, says Brad Aldridge, product manager, John Deere Golf & Turf One Source.

Assuming speed is constant, the timesavings is directly related to the width of cut of a machine, he explains.

Here are the numbers you need to run by your boss:

A 72-inch mower is 20 percent wider than 60-inch mower, meaning that a 60-inch mower will take 20 percent more time to cover the same ground. Take this extra time and multiply by the labor rate and number of days mowed to arrive at the additional expense. If it takes the 72-inch mower five



**"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

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 6-

mower compared to the 72-inch mower.

"Labor is a good way to look at it," agrees Anderson. "Labor is the number-one 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.

foot 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 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







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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-



## 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 mowed, 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.

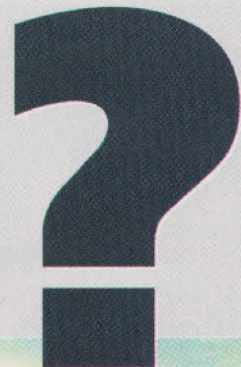
"In many situations, spreading payments over a longer term tends to suit cash flow-conscious operations better than a capital expenditure," Flanery says.

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*





# TOOLS & EQUIPMENT

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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## SLF-1880

Jacobsen's SLF-1880 weighs just 2,200 lbs. and reduces turf compaction. The patented vertical lift-arm mechanism allows the reels to follow uneven or undulating terrain without scalping or sacrificing quality-of-cut. Equipped with individual 18-inch wide reels that produce an 80-inch cut, the SLF-1880 is available in both gas and diesel two- and four-wheel drive models. The FlashAttach reel mounting system allows simple, quick reel removal for maintenance.

**Jacobsen**

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## 2653B trim, surrounds mower

John Deere's 2653B mower boasts improved traction, operator comfort and serviceability. The new traction system provides flow equally to each wheel motor, reducing slippage and improving hill climbing, while still maintaining the well-known quality of cut. The redesigned operator station provides easier access to operator controls, better access on and off the machine, and four additional inches of legroom. Two-post ROPS standard.

**John Deere**

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## New zero-turn mowers

Kubota's new ZD-300 series of zero-turn commercial mowers feature state-of-the-art, energy-efficient Kubota diesel engines. These engines are designed to produce higher torque to aggressively take on heavy mowing jobs for extended periods. They use as much as 30% less fuel than gasoline engines; have fewer emissions; and operate more quietly. Plus, each model features dual fuel tanks to total 11.9 gal., which means fewer stops for refueling.

**Kubota Tractor**

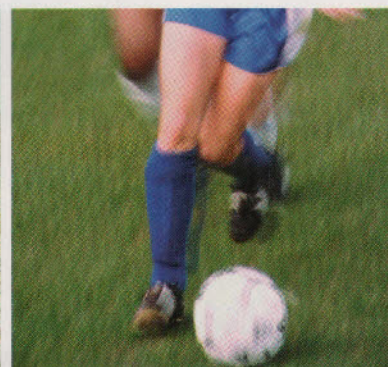
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## New intermediate zero-turn mower

Husqvarna's new iZ5223T intermediate zero-turn mower is powered by a 23 hp Vanguard engine and features a 52-inch deck, the iZ5223T offers ground speed up to 9.5 mph and a productivity rate of up to five acres per hour. The exclusive design configuration of the Tunnel Ram deck provides impressive performance in heavy cutting conditions, allowing operators to work with increased speed and precision.

**Husqvarna**

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## New turf vac system

Harper Industries has introduced a recirculated turf vac system that minimizes dust and cleans turf and sports fields with less noise. A 25-in. fan circulates air over the turf surface and back into the collection chamber. As the air is circulated, it dumps debris into the collection chamber then is pulled back into the same fan that created it, eliminating much dust.

**Harper Industries**

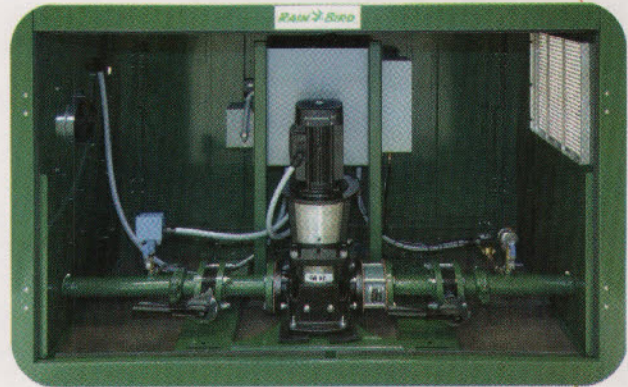
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## Pump stations

Rain Bird variable frequency drive pump stations are available in vertical turbine, submersible turbine, horizontal end-suction, vertical multi-stage, and split-case pump configurations capable of handling up to 10,000 gallons-per-minute. Available communication between Rain Bird Pump Stations and Rain Bird's central control software, SiteControl, maximize irrigation system control, saving customers time and money. Rain Bird is also the only manufacturer capable of supplying a complete and fully integrated irrigation system from "Reservoir to Rotor."

**Rain Bird**

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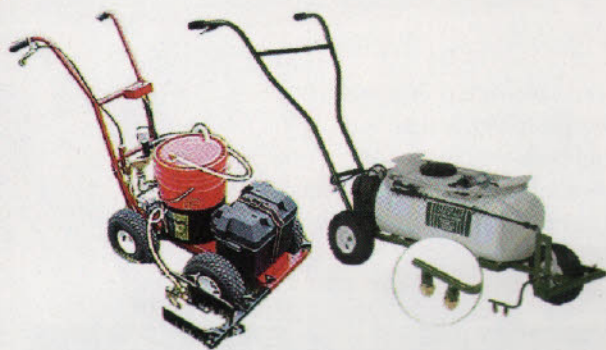
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# TOOLS & EQUIPMENT



## Field marking technology

Whitlam now offers two new battery powered stripers, the EZ-100 and the Eco-Liner. Both of these stripers offer a quiet, clean, and environmentally friendly, alternative to striping and laying down logos on athletic field surfaces. The EZ-100 is extra large 14-gal. polyethylene tank makes it convenient to make one tank trips without having to repeatedly filling up, whereas the Eco-Liner Striper offers the convenience pulling paint directly from the paint bucket to provide easy cleanup and quick color changeovers.

**Whitlam Paint Company**

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## Hand watering applicator

Aquatrols has improved its Advantage Applicator. The new design features a brass control valve for greater durability, and a new precision spray nozzle designed to put down a large volume of water with a wide and precise droplet-distribution pattern for quick and even application. As an added value, the Advantage Applicator can quickly and easily be transformed into a syringe nozzle for watering greens and tees by simply connecting the precision nozzle and high flow control valve together.

**Aquatrols**

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