It's not about working harder.

F680 Z-Trak™ Zero-Turning-Radius Mower
$212 Month** • New 7-Iron™ deck

COMMERCIAL DEERE SEASON 2000
A PRODUCT OF SEVEN-GAUGE STEEL AND DEEP THOUGHT.
Formed by four million pounds of pressure (and lots of concentration on the part of our engineers), the world’s first seven-gauge stamped steel deck’s full-length front baffle, maximum blade overlap (40 mm) and stunning 5.75-inch depth creates a vacuum, cutting force and airflow even the wettest, thickest grass can’t withstand.

It's about working smarter.

SETS THE PACE FOR AN INDUSTRY.
With protected kevlar belts, fully enclosed transmissions with a 3-year limited warranty, and rugged construction, reliable GS Series gear-drive walk-behinds easily take the toughest jobs in stride, and over time, leave all other competitors behind.

ONE ENGINEERING FEAT DESERVES ANOTHER.
For a limited time, we’re giving away a free pair of premium John Deere 962 work boots (crafted for extraordinary comfort and strength) with the purchase of any John Deere commercial walk-behind (36-in. or larger). Act soon—offer ends July 5, 2000*.

$174 Value
Suggested list price

$194/Month**

M653 Z-TRAK™ MOWER

$212/Month**

F680 Z-TRAK™ MOWER

NOT JUST A CARD, A TECHNICAL ADVANCEMENT.
Highly productive on the go tracking, for a perfect cut in a limited 3-year send other machines.

Only $2,399*
$71/Month**

GS30 WALK-BEHIND MOWER
STILL AHEAD OF THEIR TIME.
With patented two-pedal hydrostatic controls, a hydraulic lift to climb curbs, extraordinarily tight turning radius, high-torque gas and diesel engines, and precise power steering for superior trimming, these extremely affordable and durable machines prove John Deere is always thinking ahead.

COMMERCIAL WALK, ADVANCE.
Our HD Series hydrostatic walk-behinds include oscillating decks with anti-scalp gauge wheels on uneven ground, fast 2.2-mph reverse speed, transmission warranty, and prices that could manufacturers back to the drawing board.

4600 TRACTOR
With 460 LOADER AND 613 ROTARY CUTTER
$433/Month**

HD45 WALK-BEHIND MOWER
Only $3,999*
$117/Month**

F735 FRONT MOWER
$10,999*
$213/Month**

F725 FRONT MOWER
$8,495*
$164/Month**

4100 HST TRACTOR
$330/month

CREATED TO CUT IT.
With 4WDS, A/C, and cooled big John Deere engine, our 4100 HST tractor is a perfect example of a mid-range tractor that can do just about anything.

10% DOWN ON ALL COMMERCIAL MOWING EQUIPMENT

NOTHING RUNS LIKE A DEERE®
POWERGARD® PROTECTION PLAN

SECURITY AND VALUE FOR THE LONG TERM.
Available for all new John Deere tractors, engine and powertrain coverage can be purchased for 12, 24, or 36 months (with varying hour combinations) beyond the John Deere Basic Warranty. This coverage transfers to subsequent owners, so it not only protects your investment, but adds resale value, too.

DESIGNED BOTH TO EXCEL AND ENDURE.
From exceptional breakout force, to oil-cooled disk brakes, to a high-torque John Deere PowerTech engine with a balanced crankshaft and wet cylinder liners, to planetary final drives, the 45-PTO-hp 5210 is the ideal tractor for maximum productivity and longevity. (Price includes new 521 Loader.)

5210 UTILITY TRACTOR WITH 521 LOADER

$382/month**

WITH BIGGER THINGS IN MIND.
20-hp, mid- and rear-PTOs, long-lasting oil-bath, an easy-to-use Twin Touch® hydro transmission, and dual hydraulic pump for dual implement performance, the 20-hp model has every feature found on a larger tractor—except for the price. (Package includes lawn tractor, 410 loader.)

HANDLES ANY WORKLOAD.
The combination of a loader with high breakout force and quick cycle times, and a PowrReverser™ transmission (that lets you go back and forth without clutching) allow this 43-hp tractor package to make short work of work. (Package includes 460 Loader, 613 Rotary Cutter.)

and are available at participating dealers. Machine prices do not include taxes, freight set-up and delivery charges. ** Offers end July 5, 2000. Subject to approved credit on John Deere Credit plan, for commercial use only. Up to 20% down payment may be required. 10.4% up to 36 months on Commercial Walk-Behind Mowers, 10.4% up to 48 months on 2-Track Mowers, 10.4% up to 60 months on Gator Mowers. 6.4% up to 60 months on Gator Utility Vehicles, Compact Utility and Utility Tractors. Taxes, freight, setup and delivery charges could increase monthly payment. Other special financing available, including financing for personal use. Available at participating dealers. Prices and models vary by area. A Manufacturers suggested list price, does not include taxes, freight set-up and delivery charges may vary by dealer. ** Offer ends July 5, 2000. Subject to approved credit on John Deere Credit Revolving Plan, for commercial use. If the balance is not paid in full by the end of Same As Interest will be assessed from the original date of purchase. Available at participating dealers. Prices and models may vary by dealer.
A TRACTOR THAT WORKS AS HARD AS YOU DO.
Hitching to implements in under five minutes is just one of this 30-hp tractor's many talents. Others include easy starts, and restarts, with direct injection and an auto-bleed fuel system. Most importantly, its price works very hard, too.

790 TRACTOR
$10,995*
$181/ Month**

OUR ENGINEERING BREAKTHROUGHS INCLUDE PRICES, TOO.
The 40-PTO-hp 5105 has a wealth of advanced features like a fuel-efficient, high-torque John Deere direct injection PowerTech® engine, reverser transmission, excellent hydraulic flow, and large capacity 22.4 gallon gas tank. It has so many in fact, that you can hardly afford not to stop by for a test drive.

5105 UTILITY TRACTOR
$274/ Month **

GATOR 4X2
$5,995 *
$99/ Month **

CONSIDER THEM INVITATIONS TO USE YOUR IMAGINATION.
Gas or diesel Gator® Utility Vehicles' ability to haul more than their own weight (up to 1400 pounds!), tread lightly on turf (with a psi of just 7.1 to 7.5), and high ground clearance mean the only limit to what they can do might be your imagination. †Total capacity for the 6x4 Diesel - includes 200-lb. Operator, 200-lb. Passenger
and maximum box capacity.

XT SERIES HANDHELD

XT170 LINE TRIMMER
Just $409 99*
90 days same as cash††

BP50 BLOWER

H20D HEDGE TRIMMER

NOTHING HOLDS THEM BACK.
XT Series handhelds set the tone for sound quality and low vibration levels. And with industry-best power-to-weight ratios and rugged construction, their performance is something competitors simply can't touch.

††See inside panel for details.
FROM THE COMPANY THAT PRACTICALLY INVENTED THE HARDWARE
From the new, rugged, double-deck MX Series Rotary Cutters to a 48 Backhoe that can be attached and detached in under five minutes, John Deere implements are the professional’s tool of choice, no matter what the field.

NO ARTIFICIAL INGREDIENTS.
An affordable and convenient RPM kit has almost everything you need for 500 hours of routine scheduled maintenance. And the genuine John Deere parts inside promise the best operation possible.

LOW 8.4% FINANCING**

NOTHING RUNS LIKE A DEERE®
www.deere.com / 1-800-537-8233 for a dealer near you.
Keith says, “Spring is the hardest season for maintenance; fall is the easiest. Our clay in the boxes and mound is just 4-inches deep. When it dries out and the boxes dry out, the players keep digging deeper. In the fall, the stadium blocks the sun so the late afternoon shadows cover both the mound and plate. All the skinned surfaces, mound and home plate area retain the pre-game moisture levels throughout night game play.”

Webb and Keith have an excellent relationship with the players. They both love baseball and may even go out and take a few ground balls. It makes communication flow more easily.

Webb says, “We’re working with players who are making, or will soon be making, enormous sums of money. It’s extremely important that we do everything possible to keep them off the disabled list. Safety always is our first priority. The infield dirt must be firm enough to allow a hard plant of a foot when a quick change of direction is needed, yet have enough give in it to prevent sprained ankles, twisted knees or broken legs. The edges of the field must be perfect to prevent bad hops and the bases must be at the right height to prevent caught fingers during slides.”

Keith says, “We trust our coaches and players. We listen to what our players say about field conditions and how the field plays for them. Then it’s up to us to use our skills and professionalism to do the things it takes to create and maintain that high level of playability. We understand it’s the job of the groundskeeper to hand the two teams a playing surface at game time that will allow the players to decide the winner.”

Webb says, “Once we reach our goals of safety and playability, we can work on aesthetics. Having a product that is a joy to look at is usually more important to the fans than the players. In Ottawa, a lot of people come out just to see what the pattern is that week. There’s nothing better than going to a beautiful ballpark on a sunny afternoon and catching some rays and maybe even a foul ball.”

Bob Tracinski is the business communications manager for the John Deere Worldwide Commercial & Consumer Equipment Division headquartered in Raleigh, N.C. He serves as public relations co-chair for the national Sports Turf Managers Association.

Because of the park’s cold climate, snow removal is a major part of spring field transportation. April snow storms have caused the cancellation of opening day.

Concerts and other events can create a serious strain on the field and interrupt normal maintenance routines. This concert drew 10,000 people to the stadium, with hundreds of guests standing on the turf and skinned areas.
One school board came up with a simple solution to ensure their fields were safe and relatively liability-free: They locked the gates. Is the chemistry lab open all hours for any taxpayer to come in and mix formulas after the school day? Is the library open all hours for any taxpayer to enter and destroy all the books? Of course not. Does the taxpayer have free access to all public property? Of course not. Then should the athletic fields be open for taxpayers to walk their dogs, hit golf balls or spin their dirt bikes daily?

Granted, not every small community can follow this procedure, but keep in mind lawsuits involving small communities occur just as frequently as in large metro communities.

As a taxpayer in our example community, you or your community group can use any school/recreation facility inside or out if you follow these simple procedural guidelines:

A. You find out if the specific area is scheduled by a school team (first priority).

B. You fill out a request form with your group's insurance I.D. number (city's protection).

C. You pay for a custodian or groundskeeper to oversee your use while on the property (safety valve for assistance and security).

This is a positive approach to handling a serious problem—facility abuse without repair compensation.

This school board has had tremendous success in communicating their message to the taxpayers; we want our physical education classes, athletes and community groups to use the school board facil-

Heavy traffic on this baseball field has led to serious drainage problems.
ities in a safe and hazard free manner, no different from
the civic center, courthouse or city park. A liability
waiver/user fee replenishes the budget for equipment
and facility improvement for the neighborhood and leas-
ing group.
I have tried to encourage school board maintenance
supervisors in our GMS facility seminars to initiate a
program of locking their gates to protect against exces-
sive outside usage. Their replies are always the same:
The principal, mayor or director won’t back them and the
gates must be left open after school as well as weekends.
Can you imagine if the principal left the school doors
unlocked all weekend? Can you imagine what would
happen if the mayor left city hall open all weekend? I
don’t think I have the time to explain what would happen
in that scenario.

Floyd Perry was a high school and college coach in
Orlando, Fla., and now travels around the country coordi-
nating workshops and seminars on grounds maintenance
and facility improvement. He has authored three text-
books—A pictorial Guide to Quality Groundskeeping I,
Covering All the Bases, Book II, There Ain’t No Rules and
Book III, Maintain it Easy, Keep it Safe. Floyd has also
produced two videos, The ABC’s of Grounds Maintenance;
Volume I, Softball and Volume II, Baseball. For more
information call 800-227-9381.

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bermudagrasses? Ask for certified TifSport, the new sportsturf developed
especially for athletic fields. It's genetically pure, has a richer color, superior
cold-hardiness, excellent drought tolerance and holds up to the rough and
tumble of big league play. TifSport. Ask for it by name.

Circle 106 on Inquiry Card

March 2000 13
Infield Maintenance and Grooming

by Trevor Vance

The skinned area of the infield is the most important part of the baseball field. Sixty-six percent of the defense and 100 percent of the offense is played there. It's where the game is won and lost. Safety is the top priority. After that, you could have turf rivaling the greens of Augusta, but if your infield isn't good, you won't make it as a baseball groundskeeper. The infield dirt is where you gain the players' respect and they gain confidence in your field. They want to play on the same field from the first to the 81st game. Your goal is to provide the

ARE WE INSTALLING TURF OR STRIPPING??

ALLTEL STADIUM
HOME OF JACKSONVILLE JAGUARS

Actually, we are stripping. Our process is so clean and efficient that it's easy to be confused. So, whether it's to strip a field, or install a field using our turf or yours, CYGNET TURF is able to perform under all kinds of conditions and we are able to respond to most emergencies.

Stripped and installed Jacobs Field Cleveland Indians

Installed Jack Kent Cooke Stadium Washington Redskins

Stripped and Installed Ohio State & Univ. of Iowa Football Fields

Our patented machines carry the rolls, turn them at ground speed, and install down a controllable slide for tighter seams.

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sportsTURF • http://www.sportsturfonline.com
There are several "right" methods of maintaining an infield. Those methods must be based on your labor power, time, budget and the number of infields you maintain.

At Kauffman Stadium in Kansas City, Mo., home of the Royals Baseball Club, we do all our work by hand. Though some people call us dinosaurs for doing it that way, we know we're providing a consistent field day in and day out. By the time we have pulled the spike board and the mat drag by hand, we will have walked every square foot of the infield and know where any loose spots or hard spots are.

The Basics
The first element of infield maintenance is understanding what the material consists of in proportions of silt, clay and sand. I recommend having your infield material analyzed by a soils laboratory to obtain the specific information. The percentages of material content impact traction. Too much sand produces a very "loose" infield and players get no footing; too much clay produces a "hard" field. Knowing what you're working with will tell you what kind of water it needs; how it will react to heat, rain, humidity, etc.; and what equipment might be needed for maintenance, such as rollers, etc.

You determine the percentages you want and are comfortable working with and make the necessary adjustments to obtain that percentage. Oriole Park at Camden Yards has 60 percent sand. Kauffman Stadium's infield mix is approximately 40 percent sand, 30 percent silt and 30 percent clay. While our infield could get sloppy if it rained, we have the resources to tarp it. For high schools or parks and recreation departments with multiple fields and limited resources, the mixture should have more sand than silt and clay. Find a reliable supplier to provide a consistent supply of your infield material and fast, dependable service.

Managing Infield Conditions
It's important to understand the changes your maintenance practices can make in the game. To produce a slow infield, spike it deep to soften it. A ball landing in the soft infield "dies" on the dirt. To produce a faster infield, provide a harder surface. Roll it, and then let it bake and get hard. While this is an advantage to your offense, it's a disadvantage to your defense. I have a coach who wants a consistent field that lets the players decide who wins the game.

To achieve consistency, you have to adjust your maintenance practices for two factors you can't control: weather and field schedules. You have to monitor things constantly to make the call for today's maintenance program and plot how you're going to attack tomorrow's conditions.

Ballplayers are your best friends. If you respect what they do, they'll respect what you do. As they gain confidence in you, they'll understand you may make temporary deviations in field conditions to manipulate better conditions and consistency at game time. For example, there are times we don't wet down the field because of incoming rain.

continued on page 18
This machine didn’t start as a blueprint or in a focus group. It began as a dream: To craft a zero-turning-radius mower with the finest mower deck ever. Enormous challenges stood in the way. Four million pounds of pressure and thick seven-gauge (.177 inch) steel were needed to stamp a mower with the required depth and strength. The front baffle had to both eliminate dead space and brush grass into a vertical position—a paradox. And the machine itself had to set new standards in maneuverability and reliability. Yet the F680 with its 7-Iron™ deck met every goal. Proof engineering plus imagination can accomplish anything. To see for yourself, stop by any John Deere dealer (call 1-800-537-8233 for one near you).

Offset to the side and front-mounted for trimming, 7-Iron decks float over uneven ground, while maximum blade overlap (40 mm) assures a pristine cut during turns. Deck flips 90 degrees, proving no angle has been overlooked.

Shaft-driven mower blades, unparalleled 5.75-inch depth, full-length front baffle, and wide-discharge chute, create a vacuum, airflow and cutting force even the thickest, wettest grass can’t withstand.

F680s come only in extra strength. They have the industry’s only stamped steel seven-gauge deck, .75-inch bump protection, recessed spindle housings, automotive-quality paint, and heavy-duty frames.
Forward thinking, even to the rear. Engine cowling lifts for easy service, and a safety latch automatically locks it into position. And the back of the mower always stays within the cutting arc, so there are never any fences to be mended.

To really judge the F680’s superior design, look underneath. A wide-stance, low center of gravity and high ground clearance let it stick to hills and clear curbs. Rugged frame guards and skid plate protect wheel motors and 20-hp OHV engine.
**Daily Maintenance**

With Kansas City's fast changing weather, constant monitoring is essential. We rely on our DTN system for daily weather information covering the counties in the state and information from our local weather service focused on conditions at Kauffman Stadium. The relationship I've developed with the weather service personnel includes phone contacts should something happen that could affect the field.

Once we know the conditions we'll be dealing with that day, we can fine-tune the maintenance program. The processes may be different, but the end result is the same consistent playing conditions.

The amount of water applied each time is critical. If the sun is out or it's windy, we apply more water. If skies are cloudy and overcast, or if humidity levels are high, we cut back on water. With rain imminent, we may water lightly every half hour to avoid moisture build up.

In a perfect world, after a night game, we dress the field to get it back to 90 percent playability. We pick up all chalk. We repair the mound and home plate, pack them well, water the mound and cover it. The tarp remains on the mound until batting practice and the mound is always tarped when the team is out of town.

We rake the infield skin in one direction and mat in a second direction.