

“Dirty Harry” Callahan uttered one of the most recognized movie lines when he said, “A man has got to know his limitations.” What he said applies to sports turf managers too. No matter how hard you try, there is simply only so much one can do, regardless of budget, expertise, location, and so forth. Sports turf managers are some of the most conscientious turf managers around, but are often unable to accept that some things in their sports turf management programs are just not possible. Have you identified YOUR limitations? And maybe more importantly, are your expectations for your sports field compatible with these limitations? Let’s consider some of the limitations you face and the ways to manage them.

Consider the grass, the climate, and the sport. What grass works best for your climate, sport, and anticipated use? Are you in a predominantly warm-season, cool-season, or transition zone climate? Bermudagrass is a logical choice for warm climates, and Kentucky bluegrass blends or Kentucky bluegrass/perennial ryegrass mixtures work well in cool-season climates.

Turf managers in transition zones face special challenges. Even after making the most informed decision possible, the grass you select will still have major limitations due to times of field use outside of seasons of growth. For instance, a cold-tolerant Bermudagrass chosen for a transition zone field can usually meet the needs of fall football or soccer. However, what about spring baseball or lacrosse? Now you are faced with having a totally dormant turfgrass for almost the entire spring sport season, or you have to overseed it in the fall with ryegrass, and live with the consequences of the management and competition from the overseeding. No matter how good a turf manager you are, there is no way that you can always be expected to deliver a top-notch playing surface. Your clientele should not expect it and YOU should not expect it either!



Figure 1. A properly timed spring cultivation of a cool-season field can greatly improve turf performance before the stresses of summer.

climate. Water soluble nitrogen levels of 0.25 to 0.5 lbs/1000 square feet can provide very desirable growth responses in early to mid-spring.

However, be wary of carrying significantly greater fertility rates and overly aggressive cultivation programs forward into the more stressful periods of late spring and summer. Heavy spring N fertilization might produce a spectacular looking

MATCHING EXPECTATIONS WITH LIMITATIONS

BY MICHAEL GOATLEY, JR.

Focus on expectations that can be managed. Whether you choose Bermudagrass or Kentucky bluegrass, there are very predictable periods of root and shoot growth and carbohydrate production that enable one to make agronomically responsible management decisions. There is a spring “window of opportunity” for cool-season turfgrasses that first opens when soil temperatures at a 4-inch depth are consistently < 50 F. The window remains open until soil temperatures regularly begin exceeding 65 F. This presents a somewhat brief, but possibly very important period for maximizing plant growth (particularly the root system), and is quite often the last chance for establishment or renovation before the stresses of summer are encountered.

Spring cultivation to relieve the physical limitations of soil compaction following fall and winter field use can provide major improvements in growth potential (Fig. 1). The limiting factors in timing spring core aeration events are usually not so much the potential for damaging the turf during cultivation, but instead are proper soil moisture concerns (the soil is often too wet for the aeration equipment to perform properly) and slow recovery potential of the turf if done very early in the window.

The most significant root growth potential for cool-season turfgrasses occurs during early to mid-spring. However, this must be countered by the understanding that soon after the initial surge in root production is over, the plant’s growth focus shifts very heavily towards that of producing shoots and leaves, just before the onset of the environmental stresses of the summer.

The key to success in the spring window for cool-season athletic field management is directly related to being reasonable in the timings and levels of fertility and cultivation that are delivered. A program that balances the needs of roots and shoots is best. Promote turf growth that is satisfactory to withstand reasonable field use, but do so responsibly based on the limitations you face with the soil, the grass, and the

playing surface, but the great looks can be negated by very poor performance later in the summer months as the plant has neither an adequate root system nor storage carbohydrates available to promote recovery.

The largest window of opportunity for cool season athletic fields is in late summer to early fall. This window opens as soil temperatures first begin to drop to >70 F and ends typically at the first killing frost date. While the shoots are still photosynthetically active, top growth slows due to shorter day lengths and cooling night temperatures, and root development and carbohydrate storage are enhanced. With the heat of the summer passed, the late summer to early fall window presents the ideal time for aggressive fertility, cultivation, and establishment programs.

For Bermudagrass athletic fields, rather than spring and fall windows, there is one large window of opportunity from mid-spring through early fall. Shoot growth gets a jump-start on root production as the grass emerges from winter dormancy, and the levels of root growth and stored carbohydrates actually decline as we enter another active growing season.

Research has shown that the root system of Bermudagrass basically has an annual life span, and that for all intents and purposes, its root system dies and is replaced each spring. The death is not sudden and complete for every Bermudagrass root in your field, but this phenomenon presents an unseen limitation that must be managed carefully. Aggressive spring N fertilization can exacerbate the problems



due to a declining root system, and can further drain what little carbohydrate reserves are available. Refrain from aggressive fertility and cultivation programs until the Bermudagrass canopy has completely greened and the last chance of a killing frost has passed. Then, if water is available in adequate quantity and quality, your Bermudagrass athletic field should be ready for periods of aggressive management and intensive use during the heat of summer. Under such conditions, it is likely that you will promote significant thatch development.

For an athletic field, 0.5 to 1 inch of thatch can actually be beneficial in improving turf wear tolerance and serving as a means of insulation and protection of stems. Still, it is not unusual for a Bermudagrass sports field to have excessive thatch. There is nothing that will rejuvenate the field quicker than an aggressive vertical mowing event in order to reduce the competition of the plants for space, light, water, air, and nutrient (Fig. 2). Within a week, a Bermudagrass field that is properly fertilized and irrigated for recovery will show little sign of the effects of such drastic treatment, and will actually be a healthier stand of grass than it was before cultivation.

For both warm and cool-season athletic fields, the mid- to late spring period presents serious challenges in trying to maintain the balance between shoots, roots, and carbohydrate levels. The following management strategies are important:

- Be smart with nitrogen. Low to moderate levels of N go a long way in the spring on both cool-season or warm-season grasses. It is wise not to begin an aggressive N fertilization program until the turf is actively growing in either case. Always use soil test data to determine if adjustments in soil pH or other nutrient levels are needed.
- Manage traffic. A turf that is trying to recover from the wear and tear of heavy traffic will further expend both newly created and stored carbohydrates in its recovery efforts. The strain on the root system becomes even greater, and the limitation in the root system is not something that the turf can "grow out" of by way of fertility.
- Manage irrigation wisely. Irrigate as needed to promote active growth, but manage the turf on the dry side if possible. This reduces soil compaction tendencies and will encourage the root system to explore for water deeper in the soil.
- Manage compaction wisely. As stated earlier, cool season athletic fields respond well to core aeration in their spring window of opportunity, while it is most prudent to wait until Bermudagrass has completely greened before cultivation.



Figure 2. Aggressive vertical mowing of a bermudagrass field in mid-summer can ultimately improve the overall health of the turf.

Get the most out of N fertilizer

This information was adapted from *Turfgrass Fertilization: A Basic Guide for Professional Turfgrass Managers*, prepared by Dr. Peter Landschoot for Penn State's College of Agricultural Sciences.

The following are suggestions for maximizing the efficiency of your nitrogen fertilizer program while minimizing losses to leaching, runoff, and the atmosphere:

1. Soil test. Applications of phosphorus, potassium, and lime according to soil test recommendations allow more efficient use of N fertilizer by turfgrasses.
2. Apply N in amounts needed by the species you are trying to maintain; more is not necessarily better.
3. On turf, apply N fertilizer in multiple applications over the growing season so as to meet the needs of your turf at the appropriate time, usually mid- to late spring, late summer, and late fall.
4. Returning clippings to turf can cut N use by up to one-third.
5. Don't overwater. Too much water can leach N below root systems and into groundwater.
6. Use slow-release fertilizers when making infrequent, high-rate applications in areas where soils are prone to leaching.
7. Keep N on the grass and not on pavement. Shut off your spreader when moving across maintenance roads, or blow or sweep granules from pavement.
8. Do not apply N under summer dormancy or on frozen surfaces.
9. Water-in urea or ammonium fertilizers, especially when applying in warm weather.
10. Fill and empty spreaders in areas where spills are easily cleaned up. Use this spilled product, don't wash it into storm sewers or elsewhere.

Consider field use and your budget. There is little doubt that no matter what your intentions are in providing the best, safest athletic field possible, the biggest limitations you are likely to face will be related to field use demands and the resources you have. There has been little research available comparing expected field use levels with budgetary considerations, but there now are some definitive data on the subject credited to Michigan State University. A publication entitled "Optimizing Cultural Practices to Improve Athletic Field Performance" does an excellent job estimating how maintenance costs are correlated with the number of simulated soccer games on an athletic field where acceptable turf cover is maintained.

Any turf manager fighting a battle with administrators and others regarding budgetary issues that limit their ability to provide an acceptable playing surface should be armed with a copy of this report. This information predicts the return on the investment in maintenance practices, something any administrator or municipal official should be anxious to see. It can be found at www.turf.msu.edu (bulletin E18TURF; authors R. Calhoun, L. Sorochan, J. Sorochan, J. Rogers III, and J. Crum).

There are obviously many more limitations that you will face (for instance space, light, water quality, etc.). Once identified, you should develop strategies not necessarily to eliminate the limitations, but instead, find ways to manage them. "Dirty Harry" was right—you do have to know your limitations. However, your ability to deliver in the face of limitations will certainly make a bold statement regarding your capabilities and your professionalism. **ST**

Michael Goatley, Jr., is an extension turfgrass specialist at Virginia Tech. He can be reached at goatley@vt.edu.

MOWING FOR A PRO LOOK WITHOUT A PRO BUDGET

For generations, sports and sports figures have had a tremendous influence on Americans' buying decisions. Whether intentionally or indirectly, athletes have helped countless millions of fans decide what kind of shoes or brand of mitt to buy, or even which gum to chew. From an early age, kids want to be more like "the big guys," and that attitude holds true at every level.

It even affects us in the sports turf industry, because all players want to participate on fields that "look like the pros." In an era of satellite dishes and 24/7-cable coverage, fans now have unprecedented exposure to visual images of top-level sporting events they'd probably never actually get to see in person.

"Everybody wants that professional ballpark groomed look, with the fancy striping and pattern mowing," says John Mott, superintendent of recreation, sports grounds and campus facilities at The Ohio State University. "It's just increasing in popularity, and striping was a really big part of what we were looking for when we bought new rotary mowers."

"We have a demanding audience, and the people we're involved with really want to see what they see on TV," agrees Daryl Kimbrough, manager of the Grounds Department of the Mount Prospect Park District in suburban Chicago. "It's especially true of the parents, because they want the best for their kids."

Kimbrough and his staff are responsible for maintaining 26 baseball/softball

started getting into the habit of striping them, and everybody thought the facilities looked so much better that way. Then they had the desire for those aesthetics to carry on outside of the stadiums too."

"Everybody wants the fields to look the best, which is our goal," agrees Mike Loudermilk, grounds foreman of the Oconee County School District in Seneca, SC. Having to maintain 19 different athletic fields in a variety of school locations across the county, Loudermilk's crews need to please a diverse audience.

"We do a lot of striping, and most of it just depends on what kind of mood the coaches are in and what kind of design they want," he says. "We may bulls-eye the center of the soccer field and then stripe the end zones. For football and baseball fields, we use either checkerboard or straight line stripes, or sometimes a diagonal stripe. If they get a new design that they want to try, a lot of times we'll try it just to see how it looks. Fortunately, the community's been very supportive."

Aesthetics vs. expenses

Given the ongoing demands for improved aesthetics and satisfied patrons, striping is understandably a high priority for many sports turf managers. Achieving attractive striping isn't a tough challenge in itself, because many good mowers can provide it beautifully. But what does that do to your financial priorities at budget review time?



fields, 16 combination soccer/lacrosse fields and four football fields, in addition to hundreds of acres of parks. Mount Prospect has hosted the Amateur Softball Association national championships several times and its high standards are well known.

"People are concerned about the aesthetics here," Kimbrough says, "and it's not always very realistic, to be honest. But there are some things we can do to upgrade those appearances," he adds. "We wanted to show the difference in the appearance of the actual sports surfaces as compared to the rest of the parks, and so we started striping the turf."

Maintaining appearances

Parks and public athletic facilities are significant factors in promoting a community's lifestyle and neighborhood pride. Naturally, the residents expect the nicest fields they can get. The same is true for schools. The campus visit is often a key factor for high schoolers making their choice of a college, and the quality of recreational facilities can be extremely persuasive.

"Thirteen years ago we didn't even stripe the game fields, for the most part," says Brian Gimbel, superintendent of athletic grounds at Ohio State. "But then we



Parks, community athletic facilities, school districts and state universities are publicly supported organizations. Being such high-profile users of residents' tax dollars, they have very scrutinized constraints on expenditures. It can be a tricky balancing act: If a turf manager wants to invest in striping equipment to deliver the first-class aesthetics people demand, the purchase still has to be justifiable on a cost-value basis.

Fortunately, manufacturers have been successfully addressing those concerns in recent years. New rotary mowers have come along that satisfy both sides of the equation for turf managers: excellent cutting and striping ability plus the cost-efficiency of increased productivity and lower operating expenses.

"Initially, it was kind of a difficult sell to the powers-that-be," says Mott. "But once we got some credibility, and they saw how efficient the new rotary is, it was much easier."

The machine he's talking about is a Toro Groundsmaster 4700-D, a 60-hp turbo-charged mower with seven free-floating, rotary cutting decks. Ohio State counts on its 12.5-foot-wide mowing swath and heavy-duty rollers behind each deck to it create a distinctive striping.

"It gives us a nice balance of the high-quality cut, the striping and the efficien-

cy," Mott says. "At one of our parks, we're now mowing it in 45 minutes and it used to take probably an hour and a half, and the mower still gives us what we're looking for in terms of striping."

"We needed something that would stripe, and the new Groundsmaster did everything for us," agrees Mount Prospect's Kimbrough. "It gave us the clean look, it gave us the striping and the guys could move it at a good rate from a productivity standpoint."

With so much emphasis put on the quality and appearance of their playing surfaces, Kimbrough and his staff agreed to dedicate their new rotary mower and one operator to the athletic fields, full-time.

"We try to mow those fields twice a week during the season, weather permitting," Kimbrough explains. "That means you're doing 2 and 3 acres apiece, multiplied times 26. But by taking this amount of acres of the actual playing surfaces off of our regular mowing crews, it made a huge difference in our ability to get around to all the other park properties, because it took a lot of time off of them," he says.

"So in essence, you can take the same people, improve your fields' aesthetics and increase productivity. It allowed more time to do other things and other cultural activities. Even if you're just finding more time to do aerating on a high-traffic area, and you're not doing anything else to it, you're creating a better and safer environment."

"I'd love to have two of those mowers," says Oconee County's Loudermilk, who has a Groundsmaster 3500-D. "Timewise, that's where it's really saved us. We figured we could take the amount of time, labor and so on that would be saved with this machine, and use it for other things on the ball field, like aerifying or topdressing, whatever we need to do."

"We were fortunate enough to be able to set aside the money to buy such a machine," says Kimbrough. "And a big part of it was because of our devotion to the programs and the leagues we serve here in our community. If I was a businessman and I wanted to have a happy customer, I would think this would have a very high value from that standpoint. It's just a matter of who's setting the standards," he adds.

"When you're able to actually increase the aesthetics of your parks and your ball fields, it makes a difference," Kimbrough continues. "We'll even hear it from the residents here, too. They just think it looks so nice after that mower's been through there. That's quite a statement for a resident to call up and tell us something looked nice."

"We want to continue giving something of quality to our customers and the university, and striping is a big part of that," agrees Ohio State's Mott. "And if I can take less manpower, mow more acres, make a nice presentation and get the quality of cut I'm looking for," he adds, "it's a win-win." **ST**

The Toro Company (www.toro.com) supplied this article.

WHEN ONLY PERFECTION WILL DO ACCESSORIZE WITH QUALITY AND PRECISION FROM BROYHILL



• Self-contained driver's seat operation

• 25' hose and spray gun (trigger grip)
• Optional: 21' or 10' boom, electric boom control,

• 46" to 54" ground to dump height
• 2.0 cubic yard box

Even if your current turf utility vehicle isn't from Broyhill, at least accessorize it with quality, precise accessories from Broyhill. Broyhill accessories are compatible with most popular turf utility vehicles and have the quality that only Broyhill can provide. Broyhill...when only perfection will do.

Check out our Web Specials Today!

For more info: 800.228.1003, ext. 34 • sales@broyhill.com • www.broyhill.com

Broyhill
when only perfection will do

ROTARY MOWERS

Here's a list of rotary mower manufacturers:

Ariens	800-678-5443	Lastec	317-892-4444
Billy Goat	800-776-7690	LESCO	440-783-9250
Bob-Cat	920-699-2000	Locke Turf	800-537-3713
Bunton	920-699-2000	National Mower	888-907-3463
Bush Hog	334-874-2700	Progressive Turf Equipment	800-668-8873
Cub Cadet Commercial	877-835-7841	Rich Mfg.	765-436-2744
Dixie Chopper	765-246-7737	Scag	920-387-0100
Encore Mfg.	800-267-4255	Simplicity	262-284-8706
Exmark Mfg.	402-223-6300	Snapper	800-762-7737
Ferris Industries	800-933-6175	Steiner	920-699-2000
Flail-Master	615-890-9180	Swisher	888-899-6528
Grasshopper	620-345-8621	Toro	800-348-2424
Honda	800-426-7701	TruMark	800-553-6275
Husqvarna	800-438-7297	Ventrac by Venture	866-836-8722
Hustler Turf Equipment	800-395-4757	Walker Mfg.	800-279-8537
Jacobsen	888-922-8873	Wright Mfg.	301-360-9810
John Deere	800-537-8233	Yazoo/Kees	877-368-8873
Kunz Engineering	815-539-6954	Zipper	888-876-6937
Land Pride	888-987-7433		



SUB-SURFACE INJECTIONS

LiquiJect has new technology for sub-surface injection and aeration that combines two necessary tasks, sub-surface liquid injection and turf aeration, into a 1-pass process. The tractor-drawn system places liquid products directly into the soil below the thatch. Allows for precise placement of soil surfactants, wetting agents, liquid fertilizers, insecticides, fungicides, herbicides, and nearly any other liquid solution.

LiquiJect/541-457-2662

For information, circle 076 or

see <http://www.oners.ims.ca/2910-076>



INDEPENDENT DECKS

John Deere's 3245C rotary mower features five, 21-in. independent rotary rear-discharge decks for a total cutting width of 90 in. The deck is made of 10-gauge steel, with two 5-in. wide front rollers and one solid rear roller for striping. Height of cut ranges from 1-4 in. in .25-in. increments and can be adjusted without tools.

John Deere/800-537-8233

For information, circle 074 or

see <http://www.oners.ims.ca/2910-074>

ECHO TRIMMER

The SRM-260 trimmer features Echo's Power Boost Tornado technology, and a durable hard-chromed cylinder, fully-caged needle bearings and forged connecting rod of the 25.4 cc engine for maximum power and durability, with low fuel consumption and improved engine performance.

ECHO Inc/847-540-8400

For information, circle 077 or

see <http://www.oners.ims.ca/2910-077>

GANG MOWER CAN TRIM

National Mower introduces the I-Gang3 trailed rotary mower that allows you to trim without scalping. Pivot points to a central frame link the machine's three cutting decks. Because each deck has its own

engine, they operate independently from one another, which means that less weight is concentrated on the mowing surface. This allows each deck to pivot freely and trim without scalping on slopes and in tight, uneven areas.

National Mower/888-907-3463

For information, circle 075 or

see <http://www.oners.ims.ca/2910-075>



INJECTOR MACHINE

American Soil Technologies has introduced its M216 injector machine, which injects Nutrimoist L, a liquid formula cross-linked polymer into established sod through center-drilled stainless steel

knives. The process of hydration and rehydration continues to deliver moisture and applied nutrients to the root-zone for several years.

American Soil Technologies/800-798-7645

For information, circle 124 or

see <http://www.oners.ims.ca/2910-124>

ZERO-TURN PERFORMANCE

Exmark has the new Lazer Z XP, the company's largest rider that features a 27-hp Daihatsu liquid-cooled 3-cylinder diesel engine, powering a choice of 60- or 72-in. UltraCut full-floating cutting decks. The standard quick-lift deck assist allows easy cutting height adjustments from the operator's seat.

Exmark Mfg./402-223-6300

For information, circle 078 or

see <http://www.oners.ims.ca/2910-078>



COMPACT ZTR

The Walker riding mowers are designed to fit and do the work of mid-size walk-behind mowers with the productivity of a rider. Seven tractor models are offered from 13-26 hp with gas or diesel engines and eleven mower deck sizes ranging from 36-74 in. with grass collection, side discharge or mulching capability.

Walker Mfg./800-279-8537

For information, circle 084 or

see <http://www.oners.ims.ca/2910-084>



FINISHING MOWERS

Locke Turf adds to its finishing mower line with the FP-100 series rotary mowers. In addition to Locke's wide-area pull-behind finishing mowers they are now offering a 3 pt. hitch model available in 42, 48, 60 and 72 in. cutting widths. The fully enclosed feature on the deck provides re-cycling action, which greatly reduces clippings and debris.

Locke Turf/800-537-3713

For information, circle 080 or

see <http://www.oners.ims.ca/2910-080>

You're Always Ahead of the Game with a COVERMASTER® Raincover...

"Excellent Quality.. Competitive Prices..."

wrote **Johnson Bowie**, Associate AD,
Drexel University, Philadelphia, PA

Johnson's comments confirm what we hear from the many groundskeepers who use a COVERMASTER® raincover to keep their fields dry and ready for play.

Call us and we'll gladly tell you more.

The COVERMASTER® Advantage...

- Superior in strength and UV resistance
- Outstanding heat reflective properties
- Light weight - easy to handle
- Widest materials for least number of seams
- Largest choice of weights and colors
- Backed by truly dependable warranties

TARP MACHINE VIDEO!

Call, fax or e-mail for a free video, material samples and a brochure.



Covers for football and soccer fields are also readily available.



TARP MACHINE™ lets you roll the cover on and off in minutes.



TARPMATE™ roller comes in 3 lengths with safety end caps.

COVERMASTER™
COVERMASTER
COVERMASTER

MASTERS IN THE ART OF SPORTS SURFACE COVERS

CALL TOLL FREE
1-800-387-5808

covermaster.com

E-MAIL: info@covermaster.com

COVERMASTER INC., 100 WESTMORE DR. 11-D, REXDALE, ON, M9V 5C3 TEL 416-745-1811 FAX 416-742-6837



Circle 129 on card or www.oners.ims.ca/2910-129

MOW AND PAINT

Tru Mark's RS-500M mows and paints your lines. The rider is a self-propelled field marker with an integrated 33-in. HiVAC mower deck with five height adjustments. The paint shoe assembly is mounted for added visibility, improved line coverage with a two opposing adjustable nozzle bracket, and a "floating" variable width shoe from 2-8 in. for added line accuracy. Tru Mark Athletic Field Marker/800-553-6275. For information, circle 081 or see <http://www.oners.ims.ca/2910-081>



CORDLESS ELECTRIC SPRAYER

Use the Spray-easy to spray fertilizer, herbicides, insecticides, sealants, and more. The 12V rechargeable sprayer provides a consistent 40 psi, full-pressured spray and eliminates the need to manually build pressure by hand pumping. Tank has a conveniently located drain plug for easy clean up. Hoffco/800-999-8161. For information, circle 082 or see <http://www.oners.ims.ca/2910-082>



TOP OF THE LINE SCAG

Scag's Sabre Tooth Tiger zero-turn rider has low center-of-gravity and wide, balanced stability for maneuverability. Features 10.5 mph ground speeds and 31-hp Briggs Vanguard Liquid-Cooled Turbo-Diesel engine. Heavy-duty driveshaft and 90 degree gearbox deliver reliable, no-slip power to the cutter deck, with cutting heights from 1-6 in., in .25 increments. Scag/920-387-0100. For information, circle 085 or see <http://www.oners.ims.ca/2910-085>



Seed-a-vator®

from FIRST PRODUCTS INC

Seeing is believing!
Call for a free video!



THE SE-60 SEEDA-VATOR IS THE ONLY SEEDER ON THE MARKET TODAY WITH THE FLEXIBILITY OF PRIMARY SEEDING OR OVERSEEDING WITH THE SAME MACHINE. THE UNIT HAS A PATENTED SWIVEL HITCH THAT ALLOWS THE OPERATOR TO TURN AROUND OBJECTS WITHOUT TEARING ESTABLISHED TURF. THE CLEATED ROLLER CAN BE PINNED TO GAGE TINE DEPTH. THE SE-60 USES PATENTED VIBRATING TINES TO FRACTURE THE SOIL, RESULTING IN AN IDEAL SEEDBED. THE SEEDA-VATOR COMES WITH EITHER GROUND DRIVEN OR ELECTRIC DRIVE SEED HOPPER.

WWW.1STPRODUCTS.COM 800-363-8780 SALES@1STPRODUCTS.COM

First Products, Inc.

164 Oakridge Rd. Tifton, GA 31793

Circle 130 on card or www.oners.ims.ca/2910-130

Meet Beacon's New Dry Lineup

Beacon's new Streamliner 35 and 70 units feature:

- heavy-duty steel frame and molded plastic hopper
- retractable handles for easy storage
- enhanced chalk granulation
- variable flow control permits precise metering
- easy change from 2" to 4" lines
- best string line guide in the industry
- optional aerosol paint liner available on Streamliner 70



Experts
In The Field!



800-747-5985

Circle 137 on card or www.oners.ims.ca/2910-137

MID-RANGE TOPDRESSER

Turfco introduces a Mete-R-Matic tow-type topdresser that now features a mid-range hopper capacity for larger turf areas. The hopper capacity is 60.75 cu. ft., and it can carry a maximum load weight of 6,000 lbs.

Turfco Mfg./763-785-1000

For information, circle 089 or

see <http://www.oners.ims.ca/2910-089>



ARTICULATOR

Lastec's 3386 Articulator is a rotary mower for budget-minded customers needing extra capacity without sacrificed cut quality. This lightweight mower is powered by a 33-hp turbo diesel, the 3386 features 86 in. of production with the accuracy of a 52-in. mower. The 34-in. articulating wing deck has side reach and trimming capabilities and folds for trailer transport.

Lastec/800-515-6798

For information, circle 086 or

see <http://www.oners.ims.ca/2910-086>



HONDA LAWNMOWERS

Honda Power Equipment has introduced The Honda HRX(tm) mowers, a completely new lawn-mower line pioneering the unique Versamow System that, for the first time on any mower, enables simultaneous distribution of grass clippings to both the bag and the ground.

Honda Power Equipment/800-426-7701

For information, circle 094 or

see <http://www.oners.ims.ca/2910-094>

Desperately searching for the perfect Bermudagrass?

ge grad
eds to see
we try.

Call now because I'm very desperate and I'm not getting any younger! You'll be happy you did.
Call 904.555.1688

pupl
longs

nmitment
that sees
njoy walks
and would
many kids.
promptly

Available Now For Long-term Relationship
Great looking Australian native seeks professional who appreciates low maintenance relationships. Sports enthusiast: especially golf, baseball, soccer and football. Also great around the house. Sun lover, but some shade OK. Tough and resilient.
Serious inquiries only!
** Call 843.849.1288 **

I nee
from
life as
in the
love to
Plea

d kittens
in the park
camping

Young, Smart and Gorgeous
Tired of the singles scene and the same old crowd?
Give me a call and let's spend some time together.
Please give me a call and we'll see if we're compatible.

Colle
That
seed

Check us out!



www.celebrationbermuda.com



Celebration Bermudagrass is a joint release of the Turfgrass Producers of Texas, Florida Sod Growers Cooperative, and Sod Solutions, Inc.

The Celebration Bermudagrass and Sod Solutions names and logos are trademarks of Sod Solutions, Inc.

Circle 131 on card or www.oners.ims.ca/2910-131



VERSATILE MOWERS

Swisher offers a full line of zero-turn mowers available in 36, 42 and 50-in. cutting decks. Mow around shrubs, trees and other obstacles; the 350-degree turning radius and commercial cutting widths greatly reduce mowing time. Models include 14-hp with 36-in. mowing deck; 18.5-hp with 42-in. deck; and 22-hp with 50-in. deck.

Swisher/800-222-8183

For information, circle 083 or

see <http://www.oners.ims.ca/2910-083>



NEW WALK-BEHIND

Better Outdoor Products has launched the Quick 36, the first in a series of commercial-grade walk-behind mowers designed to be affordable. Product weighs almost 200 lbs. less than comparable mowers, and is sold directly to end-user customers through Internet sales and other direct marketing, thus leading to a lower price. Shipping is free.

Better Outdoor Products/866-290-7295

For information, circle 122 or

see <http://www.oners.ims.ca/2910-122>

COMPACT UTILITY TRACTORS

Allmand has two new model compact utility tractors with diesel engines and mechanical four-wheel drive. Multiple gear range selections on the 8435 model are available to manage different implements. Cruise control enables the operator to maintain a set speed for extended periods without foot-pedal pressure, and it automatically disengages when the brake is applied.

Allmand Bros./800-562-1373

For information, circle 090 or

see <http://www.oners.ims.ca/2910-090>



DRILL SEEDER

The Classen DS-20 Drill Seeder with saw-tooth blades creates a slit in the soil then with shoe injectors or disc blades drops desired seed into opening. Self-propelled with 8.0 hp Honda engine can seed up to 22,000 sq. ft. per hour. Has 20" overall seeding width and adjustable seed density and depth. Its twist grip throttle and clutch design make unit extremely user friendly.

Classen Mfg./402-371-2294

For information, circle 092 or

see <http://www.oners.ims.ca/2910-092>

CAT SKID STEER LOADER

The new Caterpillar 268B Skid Steer Loader features the high flow XPS hydraulic system, a load sensing, pressure-compensating system that delivers maximum power regardless of work tool speed or load. The 268B also features vertical lift linkage for efficient truck loading and materials handling. The 268B has an operating capacity of 2,700 lbs. and a maximum lift of 127 in.

Caterpillar/309-675-4228

For information, circle 093 or

see <http://www.oners.ims.ca/2910-093>



TURF DRAINAGE MACHINES

WaterWick has literature available detailing their turf drainage machines and construction machines. The former use a state-of-the-art patented drainage process to enhance playing surfaces damaged by weather, traffic, and poor drainage.

WaterWick/888-287-1644

For information, circle 091 or

see <http://www.oners.ims.ca/2910-091>

WIDE-AREA MOWERS

Progressive Turf Equipment produces pull behind rotary finishing mowers ranging in size from 10-36 ft. in cutting width. Shown is our 15.5-ft. TD65 tri-Deck model, which is for wide area mowing of playing fields where a finished appearance is mandatory. Easily adjusted cutting heights from 1-5 in. Requires 25-40 hp depending on model.

Progressive Turf Equipment Inc

800-668-8873

For information, circle 087 or

see <http://www.oners.ims.ca/2910-088>

The smartest land maintenance move you'll ever make

"Get a VersaGrader and you'll wonder how you ever got along without one."

— Richard Confoey, Inventor

Like the fax machine, the cell phone and the Internet, once you start using it, the VersaGrader will soon become vital to your work. And it's such a great value — buying a VersaGrader will be the smartest land maintenance move you'll ever make.

NOTHING LEVELS YOUR PLAYING FIELD LIKE A VERSAGRADER

Our exclusive, patent-pending Balance Equalizer System keeps VersaGrader parallel to the ground even when the pulling vehicle goes over a bump. Level the entire field faster than you ever thought possible. Then easily maintain it with the optional rake, broom and sod cutter attachments. Keep your playing fields, lots, landscape and roadways in peak condition with one super-efficient piece of equipment. VersaGrader replaces power rakes, rollers, old levelers and more.



MAKES EVERY JOB GO FASTER

IT'S SO VERSATILE

IT'S INCREDIBLY WELL-BUILT

IT'S A GREAT VALUE!



VERSAGRADER™

The smartest move in land maintenance

Call (330) 337-3439 or visit VersaGrader.com



manufactured by
Sekely
Industries, Inc.

Circle 132 on card or www.oners.ims.ca/2910-132



NEW HR-6010

Jacobsen's newest wide-area rotary mower, the HR-6010, uses a 60-hp diesel engine and features a parallel series hydraulic 4x4 drive with 4-wheel locking differential with internal wet disk brakes in the wheel motors. The servo controlled variable displacement pump provides greater control and responsiveness with less operator fatigue.

Jacobsen/888-922-8873

For information, circle 079 or
see <http://www.oners.ims.ca/2910-079>

Speed, Quality, Reliability...

Hint



To find the nearest dealer:

www.dixiechopper.com

Watch American Chopper on Discovery Channel
Mondays @ 10p ET



NEW ZT MOWER

The EverRide Warrior zero turn radius mower from Auburn Consolidated Industries, the original equipment manufacturer for Kubota, Honda, John Deere, Case New Holland and others. Features include 7-gauge tunnel deck with 149 sq. in. of discharge area; frame laser-cut from Grade 50 steel; and hydrostat system with top-mounted cooling fans.

Auburn Consolidated Industries
402-274-8600

For information, circle 175 or
see www.oners.ims.ca/2910-175



LARGE-AREA MOWERS

The Turf Cruiser allows you to mow large acreage while still being able to trim in and around trees and other obstacles because of its front-mount deck. Features include electric clutch blade engagement, dual oil reservoirs and spin-on oil filters, electric deck lift, and 2-yr. warranty.

SnapperPro/800-935-2967

For information, circle 176 or
see <http://www.oners.ims.ca/2910-176>

INFIELD GROOMERS

The Kromer AFM grooming system's multi-function unit can be equipped to take care of every infield need: spring-tined harrow, leveling blade, and finishing broom; ridge remover broom to eliminate the lip; spray boom for dust control; and dry line and paint liners.

Kromer Company/800-373-0337

For information, circle 177 or

see www.oners.ims.ca/2910-177



INFIELD MACHINE

The Infield Pro is available with a 16 or 18-hp Vanguard engine and all the tools required to keep your skinned areas in shape. Patented three-wheel series/parallel traction drive gives you the control, and machine has 7 1/2-in. ground clearance. Attachments include the tooth rake, spring rake, weeder/cultivator, spring rake, 40-in. dozer blade, 58-in. spiker, debris blower, finish grader, and drag mat.

Toro Company/800-348-2424

For information, circle 178 or

see www.oners.ims.ca/2910-178

MID-SIZE WALK-BEHIND

The Yazoo/Kees Kutter is a mid-size walk-behind features 7-gauge side skirts and a "rolled" front edge. Transmission is Peerless 5-speed 700 Series with speeds up to 6 mph and assisted reverse and 9-spline output shaft. Engine options are Kawasaki or Kohler, in 32, 36, and 48-in. decks.

Yazoo/Kees/877-368-8873

For information, circle 179 or

see www.oners.ims.ca/2910-179



VARIETY

is the spice of life.

Sealsle 1
Sealsle 2000
Diamond Zoysia
Princess -77
Bull's-Eye Bermuda
TifEagle
TifSport

For information or to sample
any of these varieties call

800/447-1840

www.westcoastturf.com

WEST COAST
TURF

Life is short. Sod it!

Circle 134 on card or www.oners.ims.ca/2910-134