ACRES
OF HILLS,
BUMPS,
BUNKERS, PATHS
& CURBS.
PLEASE REMAIN SEATED UNTIL THE RIDE COMES TO A COMPLETE STOP.

Thanks to your valuable input and the determination of Toro engineers, you've taken your last wild ride in a utility vehicle. Introducing the new Toro Workman® 1100 and 2100 utility vehicles featuring the biggest payload in their class, impressive traction, and an exclusive go-anywhere, do-anything suspension that is so smooth, it will change the way you work. No matter what kind of roller coaster terrain you work on.
The radical new Toro Active In-Frame suspension is based on a torsional pivot point that allows the entire vehicle frame to literally twist and contort to respond to your terrain.

But that wasn't enough for our engineers.

Don't just drive. Float. Large flotation tires, standard on both models, enhance your ride while decreasing compaction, even when fully loaded. High ground clearance leaves plenty of room for safe travel over obstacles.

Smoother ride. Slip-free traction. You'll feel the difference immediately with the Active In-Frame suspension. The heavy-duty frame literally twists around a torsional joint (shown below) to react instantaneously to your terrain for a smoother ride. It also gives the vehicle a "soft" traction - the wheels are always in firm contact with the ground, so tires grip better without damaging turf.

To top it off, they added an independent front A-frame suspension, so each wheel reacts separately. Even fully loaded, you'll smoothly deliver your cargo over curbs, bumps and dips. And because the Active In-Frame suspension also promotes better traction, you'll glide over hills, knolls, and loose turf without a slip.

The best turning radius around. Like the Heavy-Duty Workman vehicles, the front wheels on the new Mid-Duty models turn an incredible 70 degrees for tight maneuvering.
NO NEED TO STRAP YOU. YOU'RE RIDING THE REAL ACTIVE IN-SUSPENSION.
A custom fit for your crew. The double-walled 49x52x10-inch cargo box was designed to be customized by you, with 1x4-inch pockets for stake sides or tool racks, vertical slots for box dividers, and a recessed inner-box ridge to fit a deck or cover.

Impressive power. Since it is equipped with either a twin cylinder, 16 hp or single cylinder, 11 hp Briggs & Stratton Vanguard™ engine, the Workman Mid-Duty offers the most power in its class. Letting you also tow an 800 lb trailer with ease.

Room for everything. Including you. Exceptionally large in-dash and under-seat storage provide ample space for tools, lunchboxes and other items. Plus, the seating area is designed to give you plenty of leg room.

Efficient stop-and-go pedal start. Much like a golf car, the engine starts when you press the gas pedal, and stops when you hit the brakes. The ground-speed governor links the engine to the drive axle for a smooth top speed of 15 mph.

Solid, non-corrosive, smart. The rugged Toro frame is surrounded by a durable, corrosion-proof polyethylene body and bed that absorbs sound for a quiet ride.

Optional accessories. Add any of these versatile attachments to increase your productivity: cab, canopy, windshield, electric bed lift, refreshment center, Rahm groomer, roll-over protection, off-road lighting, and signal lighting.

To learn more about the all-new Workman 1100 and 2100 Mid-Duty utility vehicles, visit www.toro.com, contact your Toro distributor, or call 1-800-803-8676.
cent to it that also is lighted and gets the same level of play. We’ll adjust some of our cultural practices for the existing Bermudagrass fields to improve our results for the next drought. We’ll step up the aeration program to maximize the infiltration rate. We’ll also adjust our irrigation cycles, going to less frequent, but deeper irrigation to encourage deeper rooting,” Robinson said.

Robinson notes too much water is the more typical problem; there isn’t enough depth or layering of soil for excess moisture to percolate through. Once fields reach the saturation point play must be shut down for long-term preservation.

“It’s an ongoing educational process to alert our field user groups and the general public to this need, but we’re making progress each year,” she said. “We’ve developed a hot line system to provide daily field status reports and we post open, closed, or umpire/referee decision status signs on all the fields.”

Robinson’s Final Thoughts

Robinson is quick to note the program results depend on the effectiveness of those staff members out on the fields every day.

“It’s the adjustments they make on a daily basis, adapting maintenance practices to existing conditions and staying ahead of needs that keep our program in harmony. It’s like a symphony,” she said. “I’m the director up front with the baton, but if they don’t perform well we lose the harmony. Then we all look and sound bad and field conditions suffer. Our staff understands that and constantly strives to improve their knowledge and skill levels to improve the condition of our fields. They are the key to our success.”

Bob Tracinski is the Business Communications Manager for the John Deere Worldwide Commercial & Consumer Equipment Division headquartered in Raleigh, NC. He serves as public relations co-chair for the STMA.

Maintenance Program Outline

**Turf Management**
- Mow playing surface turf with reel mower - one-inch height of cut from spring through August - one-and-a-quarter inch height of cut from September through end of season
- Core aerify - four times per year, break up cores
- Topdress with sand
- Apply post-emergent herbicide for crabgrass control - as needed in July
- Apply broadleaf control as needed following IPM practices

**Fertilization Management**
- Soil tested as needed
- Determine what want to accomplish at each fertilization
- Adjust fertilization program to accomplish goals with soil test result parameters
- Typical first fertilization of season - 20-5-5 with 2% FE, 50% slow release
- Typical supplemental fertilization, generally at three- to four-week intervals, 46-0-0

**Irrigation Management**
- Recharge system as weather warms
- Inspect irrigation system
- Repair any problems (ie, valves, line breaks)
- Raise irrigation heads as needed
- Customize MIR 500 software to accommodate current irrigation needs
- Winterize irrigation system in November

**Facility Management**
- Inspect bleachers - two times a year
- Clean and blow bleachers - six times a year
- Inspect lights and scoreboard - daily
- Remove trash - daily
- Mow non-play turf surfaces with rotary mower - three-inch height of cut, rate as needed
- String-trim areas - on a weekly rotation
- Clean and stock restrooms - daily

If they could, they would...

Play their game on Thomas Bros. Grass

That’s because they know Thomas Bros. grows and installs the finest quality turf grass for golf courses and sports fields. With 17 different turf varieties, Thomas Bros. can provide durable, attractive playing surfaces for any grass field (sorry, hockey!)
Eugene Mayer: sportsTURF'S 2000 Manager of the Year

by Michael San Filippo

Any turf manager who knows Eugene Mayer will tell you that he's a man you want on your side, and not just because he's an auxiliary police officer.

Those who have worked alongside Mayer and have gotten to know him over the years agree that he is a special man in the sports turf industry, one who cares about the ground he works on, the athletes who play on it and the men and women who work alongside him. For his knowledge and compassion for the industry, Eugene Mayer has been selected by his peers as the sportsTURF Manager of the Year for 2000.

"There's no one else like him," says L. Murray Cook, president of Ballpark Services, LLC. "He has the ability to work with anyone and everyone. He's always available and willing to help and offer his assistance."

Cook, who worked alongside Mayer in improving the turf for the spring training facilities of the Braves and Expos in West Palm Beach, Fla., says he always got what he needed from Mayer. "They broke the mold with him," says Cook.

Professional career
Mayer began his turf career with Scotts in 1961, after graduating from Ohio State University with a B.S. in agronomy and agricultural education. Working in research and development, Mayer was involved in the patenting of 15 Kentucky bluegrass varieties and one St. Augustine grass variety.

His experience with various forms of turf was not limited to research labs or test plots. His knowledge of Scotts products allowed him to get down on the playing surfaces and work with groundskeepers during the 1968 Major League Baseball All-Star game at RFK Stadium, the 1975 World Series in Boston's Fenway Park and the 1993 Super Bowl at the Rose Bowl in Pasadena, Calif.

In 1988 he moved to the Professional Business Group as the technical trainer and support manager, where he was actively involved in training all professional sales people for the ProTurf Division of Scotts. His work took him to seminars throughout the United States, Mexico, Australia, Taiwan, Thailand, Malaysia, Indonesia, the Philippines and Singapore.

Mayer has also overseen the development and maintenance of playing fields for such major sporting facilities as the Rose Bowl for the 1994 World Cup, Ohio Stadium at OSU and several Major League Baseball fields. He has consulted for the Milwaukee Brewers, Boston Red Sox and Kansas City Royals, among others.

In 1993, Mayer became a member of the STMA Board, serving as commercial vice president from 1993-95. He served as secretary for his final two years, 1996-97. In 1997 he was a featured speaker at the association's annual conference.

Eugene Mayer, left, presents the Harry C. Gill Award for 1998 to John Souter at the 1999 STMA Awards Banquet. Mayer received the award in 1997.
Find the professional references you need at the

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Feature of the Month:
Sports Fields: A Manual for Design, Construction and Maintenance,
by Jim Pohalla, Jeff Krans, and Mike Goatley.
4004 $74.95

NEW! Fine Art of America's Fairways, by Mike Ventola Jr.,
This coffee table book, featuring 48 of America's finest golf courses, showcases golf course architecture and legends of the game. Featuring 138 pieces of artwork, this book guides the reader on a unique golf journey from the majestic mountains and stark deserts of Arizona and California to the vast wetlands along the coasts of Georgia and the Carolinas. The book examines the work of celebrated golf course architects, such as Trent Jones, Tom Fazio and Jack Nicklaus. 256 pgs.
4029 $59.95

Maintain It Easy (Keep It Safe),
by Grounds Maintenance Services
4023 $37.00

The Mathematics of Turfgrass Maintenance, 2nd edition,
by Nick Christians and Michael L. Agnew
This book provides you with basic mathematical principles of budgeting, fertilizer and pesticide application, the ordering of top-dressing, irrigation, and many other parts of golf course operations. 149 pgs.
4149 $34.95

Sports Turf Management Program-Maintenance & Renovation Planning Guide,
by Ashman & Associates
This manual was developed to provide a coherent plan for the management of the baseball field playing surface and provides operational guidelines for the grounds crew to use as part of the maintenance plan. Enhances the "playing conditions" of the field by elevating the maintenance standards to the highest level possible. Complete descriptions of the maintenance protocol and identification of key issues to be discussed before starting objective maintenance procedures. This book provides a plan of action outlining the tasks to be completed and benchmarks to measure the progress of the program. 160 pgs. 4024 $105.00

Destructive Turfgrass Insects: Biology, Diagnosis, and Control,
by Daniel A. Potter,
This book has the answers you need to control white grubs, mole crickets, fire ants, and other pests. Stinging and biting insects such as yellow jackets and ticks are included, as well as nuisance wildlife such as moles, raccoons, and more. Covers the biology, diagnosis, and control of virtually all of the insects and mice that attack warm and cool season turgrasses. Over 250 full color photographs. 400 pgs. 4150 $65.00

Superintendent's Handbook of Financial Management,
by Raymond Schmidgall
Written specifically for golf course superintendents, managers and owners. Official certification textbook of the Golf Course Superintendents Association of America. The book presents useful methods and techniques for understanding and using income statements, balance sheets, accounting procedures, financial statements, operating budgets, capital budgets, record keeping and much more. 150 pages.
4006 $34.95

Shop Service Manuals Set, by Intertec Publishing Corporation,
This comprehensive 14 book set totals more than 4,500 pages of service and repair information. Covers adjustments, maintenance, overhaul, and reassembling procedures. Titles included: Small Air Cooled Engines Volumes I and II; Chain Saw; Walk-Behind Lawn Mower Service; Riding Lawn Mower; Large Air Cooled Engine; 1990 and Prior, Volume I; Large Cooled Engine, through 1992, Volume II; Yard & Garden Tractor Single Cylinder Models; Small A/C Generator; Yard & Garden Tractor for Multi-Cylinder Models; String Trimmer and Blower; Rotary Tiller.
4043 $219.95

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4006 Superintendent's Handbook of Financial Management $34.95
4150 Destructive Turfgrass Insects: Biology, Diagnosis, and Control $65.00
4084 Sports Fields: A Manual for Design, Construction and Maintenance $74.95
4029 Fine Art of America's Fairways $59.95
4024 Sports Turf Management Program - Maintenance & Renovation Planning Guide $105.00
4043 Shop Service Manuals Set $219.95

Visit us at www.industrybooks.com for our complete catalog listing
Life after retirement
Mayer retired from Scotts in December of 1998, although he continues to work for the company as a consultant. Retirement for Mayer would constitute work for the rest of us: in the past two years he has helped develop the turf for the new $25 million stadium for Major League Soccer's Columbus Crew and worked with groundskeepers on the field for the Columbus Clippers, a minor league baseball team.

Jeff Limburg, head groundskeeper for the Clippers, worked with Mayer in converting the stadium from artificial to natural grass. "He's a very knowledgeable man, like a reference book," says Limburg. "I learned a lot from Eugene."

Darian Daily, head groundskeeper for the Crew, knew little about turf in the Midwest, coming from Tennessee. Mayer, says Daily, taught him everything he knows about bluegrass and sand-based fields.

"I pick his brain constantly," says Daily, who meets with Mayer once or twice a week to make sure everything is in order at the stadium. "He's so helpful, he never makes me feel like I asked a stupid question. He always takes the time to help me out."

George Toma, artificial/natural grass field consultant, has seen Mayer share his knowledge this way for over 30 years.

"I call him the quarterback," says Toma, "because he passes his knowledge on to so many young people, and the receivers of his advice and lessons have a leg up in getting started in the industry."

In addition to his consulting work, Mayer farms 300 acres and cares for 30 head of cattle with his father, Walter, and son, Tony, at the family farm where he was born and raised.

And for the past 38 years, Mayer has served as an auxiliary officer with full arrest authority for the Marysville Police Department, helping out during special community events such as parades and football games and in times of need.

Recognition for a job well done
Mayer has often been recognized along the way for his contributions to his profession and his community. Most recently he received the 1998 Ohio Turfgrass Foundation Professional of the Year Award. The award is the foundation's highest honor, rewarding those who encourage the continued study and research in turfgrass sciences and effectively communicate research information throughout the industry.

At the 1998 STMA Conference in Orlando, Fla., the STMA recognized Mayer's contributions to the association and the industry as a whole with the Harry C. Gill Memorial Award for 1997. One of the four Founders Awards, the Gill Award honors STMA's groundskeeper of the year, recognizing long-term commitment to the association's goals and standards.

For his community work Mayer received an honorary American Farmer Degree at the 1981 National Future Farmers of America (FFA) convention for his outstanding service to youth, agriculture, education and the FFA. He was honored in 1984 with a Community Service Award from the Central District of Athletic Directors Association for his work at the Marysville, Ohio, football field.

In December 1996, in an article from the Journal-Tribune in Marysville, Ohio, Mayer described why he dedicates his life to helping others. "I think we all have a purpose on this earth," he said. "My philosophy is that you have to work together to help one another. The more we can help people, the better."

See page 44 for past winners and comments.
At Pennington Seed, we know what kind of grass you want for your turf. That's because we have spent years perfecting the quality of varieties that you receive to assure the required results. For instance, Pennington Seed pioneered the Penkoted® seed coating with benefits such as heightened root development, resistance to disease and insects, along with resistance to hungry birds.

Your turf should have the deep green color and durability you require whether used as an overseeding for a warm season turf or as a permanent cool season stand of turfgrass. Pennington Seed is also the leader in the breeding of warm season turfgrasses. We have placed our best varieties for sports fields in a blend known as Bermuda Triangle. And every bag of seed that wears the Pennington logo is backed by fifty years of research and experience.

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Call Pennington Seed at 1-800-277-1412 for a distributor near you

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Circle 108 on Inquiry Card
The Sports Turf Managers Association (STMA) Certification Program is up and running. Materials have been finalized, reviewed by legal counsel and the National Certification Commission and approved by the STMA Board of Directors. Applicant packets have been sent to all STMA members and to others who have requested them.

Application forms are arriving at STMA Headquarters. A 30-day interval prior to testing was initiated for the initial group testing period. From mid-January of 2000 forward, a 60-day interval from the receipt of the application forms by Headquarters to the testing date will be in effect. The interval allows the Certification Coordinator time to check the data supplied and verify the points to be awarded.

Certification will benefit the individual, the sports turf industry, and the STMA.

Certification Benefits for the Individual
First, the certified individual will gain pride of accomplishment in achieving a goal above and beyond the daily requirements of job performance and in demonstrating a superior level of competence.

In order to qualify for the opportunity to take the certification test, the individual must achieve, and docu-

Figure 1. Basic Requirements to Qualify for CSFM Certification Testing

Please note: If any of the BASIC REQUIREMENTS are not fulfilled at the time of application, the application will be returned to the applicant (NO EXCEPTIONS).

1. The applicant must have a minimum of a high school diploma or equivalent.
2. The applicant must achieve a minimum of 40 points earned through a combination of education and experience with the following criteria:

**EDUCATION & EXPERIENCE POINTS**

<table>
<thead>
<tr>
<th>Program</th>
<th>Points</th>
<th>Activity</th>
<th>Points/year*</th>
</tr>
</thead>
<tbody>
<tr>
<td>STMA Approved Educational Program</td>
<td>varies</td>
<td>Sports Turf Crew</td>
<td>1</td>
</tr>
<tr>
<td>(See current list of approved programs)</td>
<td></td>
<td>Supervisory Sports Turf</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Assistant, Foreman or Lead Position)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Sports Turf Manager</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Top Position)</td>
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<tr>
<td></td>
<td></td>
<td>Assistant Golf Course Superintendent</td>
<td>1 1/2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Golf Course Superintendent</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: No more than 50 percent of total experience points can be earned on a golf course.

*A minimum of 1,500 hours must be spent on the job to qualify for each claimed year.

**The application and resume will be evaluated to determine eligibility for certification.

Written Test: Qualified applicants will be scheduled for a written multiple choice test developed for four major sections pertinent for a sports turf manager.
Walk lightly and carry a big load. That's the general philosophy behind the John Deere Gator® Utility Vehicle. Thanks to high flotation tires, a Gator Utility Vehicle has the ability to get out of muddy, swampy terrain, while treading lightly on even the most sensitive turf. Even fully loaded, a Gator* weighs in at only 7.1 pounds per square inch (psi). That's impressive, especially when you consider most other utility vehicles have an average of 20 to 22 psi. Gator Utility Vehicles also feature hefty hauling and towing capacities, plus exceptional balance and stability. And with prices starting as low as $5995**, there's no reason not to have a Gator on your turf. For more information, see your local John Deere dealer or call 1-800-537-8233.

*Psi for a Gator 6x4  **Price of a standard Gator® 4x2 Utility Vehicle
ment the achievement of, a minimum of 40 points earned through a combination of education and experience (see Appendix 1).

We've often referred to the "art and science" of sports turf management. This is addressed by the requirement for a combination of education and experience. While management of athletic playing surfaces requires a solid foundation in the principles of agronomics and turf physiology, there are certain elements of the process an individual must acquire through experience.

In sports turf management you sometimes "tamper" with the laws of science to achieve immediate, short-term results. Then you strictly adhere to scientific principles to correct those inconsistencies and bring field conditions back in compliance with the same laws you previously manipulated.

Unless you've "been there" and "done that" you won't have the "feel" for the "best" degree of moisture in the basepath skinned material or recognize the "right" point to raise or lower mowing height of cut, or determine the "precise" amount of topdressing to apply to achieve specific results.

In order to qualify for certification, an individual will need to have accumulated a large span of knowledge and a wide level of experience. The learning process and the self-examination that always precede formal testing will raise the individual's level of competence. Their personal level of professionalism rises and they demonstrate that factor in their own sports turf program. Their demonstrated level of ability makes them more valuable to their current employer and, in turn, gives them an edge in the job market.

To "certify" is defined by Webster's dictionary as, "to guarantee that something or someone meets a standard." Note that according to legal guidelines, any association or profession is able to certify only that an individual has met the outlined requirements for testing and has correctly answered the required exam questions and, for STMA, that these questions were developed from competencies established by professionals, educators and researchers within the industry. STMA is not certifying such things as an individual's work ethic, job performance, judgment, decision making, etc.

The human element will always be a factor in how effectively, efficiently