

Exhibitors' list addendum for STMA Conference

Advanced Agro Technologies trading as DryJect

Wayside, NJ
Booth 532

Lowdown: AAT's major product lines are DryJect Aeration for the 21st Century, Axis soil amendments, and Play Ball! infield conditioner for skinned areas.

Aqua-Maxx, Inc.

Rye Brook, NY
Booths 426, 428

BlueStep, Inc.

Atlanta, GA
Booth 1104

Fafard Peat Moss

Agawam, MA
Booth 806

FieldTurf

Montreal, Canada
Booths 1001, 1100

GreenTech, Inc.

Richmond, VA
Booth 704

Lowdown: Produces and distributes modular natural turf systems for construction and maintenance of permanent or transportable turf grass installations, including sports fields and golf courses.

Jade Run Turf Farms

Bethel, DE
Booth 512

Lowdown: Specializing in sports turf, golf course construction, and commercial landscaping.

Jaydee Equipment Company

New Lenox, IL
Booth 911

Koro U.S.A.

Littleton, CO
Booths 430, 432

Kromer Company

Mound, MN
Booths 735, 834

Lowdown: Design athletic field grooming products that improve the appearance of and enhance the overall playing conditions, for the safety of players and workers.

Scotts Company/Landmark Seed

Marysville, OH
Booth 332

Rebound® Soil Amendment (ART)

Jacksonville, FL
Booth 531

Lowdown: Rebound soil amendment is designed for use under turf to reduce compaction, enhance drainage, and provide a foundation for safer, higher performance turf.

Pickseed West

Tangent, OR
Booth 707

Lowdown: Develop and produce quality lawn grass seed and operate successful breeding program.

Soil Air Technology

Middlefield, CT
Booth 706

Lowdown: Provides professional services and equipment for enhanced drainage, soil gas exchange, and temperature control for sports fields and golf courses.

Southern Green, Inc.

Zachary, LA
Booths 324, 326

Sports Turf Managers Association

Council Bluffs, IA
Booth 1106

Lowdown: Members' goal is to be the recognized leader in strengthening the sports turf industry, enhance their competence, and have their professionalism acknowledged.

Stabilizer Solutions, Inc.

Phoenix, AZ
Booth 403

Lowdown: Specializes in natural, fiber, and poly reinforced sport and recreational surfaces. Products include Stabilizer, TurfGrids, Hilltopper clay, and various path and track mixes.

ZeoponiX, Inc.

Boulder, CO
Booth 328

Lowdown: Manufactures ZeoPro™ the only available zeoponic material. The high CEC fertilizer/soil amendment improves rootzone nutrient storage and delivery.

Tee it up for good cause

Textron Golf & Turf, manufacturer of Jacobsen, Ryan, and Cushman products, is once again sponsoring the STMA-Extron Open at the 13th Annual Conference & Exhibition. The tournament will be held Wednesday, January 16, 2002, at the SilverStone Golf Club in Las Vegas.

All proceeds from this tournament will go to the SAFE Foundation for scholarships and research grants. STMA executive director Steve Trusty said, "This is an excellent opportunity for STMA to be able to fund more and larger scholarships and to start research funding needed to provide the best sports surfaces for all levels of play."

Conveniently located minutes from the Las Vegas Strip and yet a world away, SilverStone is nestled in the high desert surrounding the Sheep Mountain Range. Newly opened in July 2001, this Robert Cupp-designed course features 27 championship holes in a combination of Mountain, Valley, and Desert nines, which feature lush greens, rolling mounds, and spectacular views of Sheep Mountain. The tournament will be played on the Mountain/Desert combination.

The tournament will begin with a shotgun start at 8:00 a.m. Extron will provide carts, transportation to and from the course, beverages and an awards luncheon immediately after the tournament in the brand-new, 25,000 sq. ft. clubhouse that overlooks the Sheep Mountain Range.

So, if golf is your "bag," pack your clubs and fill in the information on your registration form located in your conference packet (or available online at www.sportsturfmanager.com).

We hope to see you there!



Japan's Saitama Stadium: Maximizing the land

BY CLINT MATTOX

When I wrote a former teacher that I was working on golf courses in Japan and had begun to work on new soccer stadiums for the 2002 World Cup, she questioned, "They have enough room to build golf courses and football stadiums?" She knew that land is precious here and must be used effectively, especially for these monster stadiums.

Saitama Stadium, located just north of metropolitan Tokyo, is a prime example. The area is accessible to many people and the stadium is a designated emergency evacuation site during natural disasters. With a solar power generation facility and a rainwater utilization design, this stadium is unique beyond being the largest soccer-only facility in Asia.

When it opens next June, fans will see the wonder that is Saitama, the new heart of Japanese soccer, with its two practice fields and special train line. For many reasons, we had to make this field special.

I worked for Kajima Construction Co., which has played a large role in designing, constructing, and maintaining many of the Japanese, and Korean World Cup stadiums and pitches. Kajima designs and constructs stadiums, bridges, and skyscrapers and its ecological division manages golf courses and some of the World Cup soccer pitches.

Kajima realized that Saitama Stadium made for some great opportunities but also some new hurdles for turfgrass management. The field has no running track, which allows the seats to edge up very near the field. This makes for tremendous views for fans, but Kajima was concerned about shade on the field being an obstacle.

Golf lessons

Because the roof hugs the field and shelters it from the sun, shade made for big disparities in on-field temperature, which in winter meant freezing, an unacceptable condition for a busy field so near to Tokyo. So Kajima installed a temperature control system similar to one that they had previously installed in a golf course green.

This system consists of 25 miles of piping and is designed to maintain the field at the ideal temperature year round (see Figure 1). After analyzing the testing facilities results, the optimum field temperature was determined to be 68 to 77 degrees Fahrenheit at 6 in. from the crown layer. Test results showed that the root system in the 2 to 6 in. range is the area of the most active nutrient uptake, so the system was placed at the 10-in. level in order to be a safe depth from machinery damage but close enough to have control of the root zone temperature.

Because it is necessary to both cool and heat the field, the system uses temperature-regulated water instead of an electric system. To resist pipe bursting, a seamless pipe design was incorporated; pure water was used instead of a heating/cooling liquid in case of a rupture that could potentially pollute the soil profile. The system circulates water at approximately 1,055 gpm throughout the field.

Using the results of a light intensity simulation test, Kajima divided the field into seven segments and computer controlled temperature gauges and moisture reading equipment was installed to counterbalance the temperature difference phenomenon.

Due to the earth's rotation, two sub-sections had to be separated for different shading effects in the winter season. Depending on the weather, the system is not necessary during the mild temperature months of April, May, and October.

The 40-day installation of the soil temperature control system began in the middle of January 2001. A 4-in. gravel layer was deposited after the drainage tile system at approximately 26 ft. spacing was installed. Construction plans called for a 12-in. sand and soil amendment profile, but because tests showed the temperature control system was most effective at 10 in. from the crown layer, the lower 2 in. of sand was applied initially. Then came the web of seamless heating and cooling pipes of 20-mm diameter with a separation of 12-in. centers.

Once the temperature control system was in place a pressure and liquid omission test showed no risk of leaks or bursting, so the remaining 10 in. of soil profile was added.

Working the schedule

The players' stage required an all-natural lawn pitch (see Fig. 2), consisting of Mic-18 Tall Fescue, Cutter Perennial ryegrass, and a Kentucky bluegrass combination of the cultivars: America, New Grade, and Indigo. According to Mr. Takeuchi of Kajima, "The whole vitality of the pitch is increased with the power of the selection between the turf cultivars".

The temperature control system was used to ensure that the ideal integrated temperature would ensure successful germination by the multiple turfgrass varieties. A seeding date of March 26 allowed for the first mowing on April 21.

Kajima also used a compaction resistant fiber in the most trafficked areas, center field and the goal zones, because testing determined that the fibers made a noticeable increase in turf stability by increasing the bearing capacity of the treated areas, therefore aiding in compaction reduction and damage resistance.

The many different elements of Saitama Stadium came together to make the most of a wonderful opportunity (see Fig. 3). The simple task of providing a playing field for a soccer game has resulted in a soccer complex to promote a region, an emergency evacuation site to protect a country, and an experimental site to promote better soccer playing conditions for the future of not only Japan, but for the world of soccer.

I returned home with a great appreciation for the Japanese culture and especially their ability to consider every possible use for land, their most valuable commodity. **ST**

Clint Mattox, student at Purdue University, worked in Japan for his co-op experience.



Top: Figure 3
Bottom left: Figure 1
Bottom right: Figure 2



LIGHT AS A FEATHER

The L4610 tractor now offers more horsepower and three model choices. A "feather step" HST with three-speed transmission provides low, medium and high range to provide excellent power to speed ratio. The "feather step" hydraulic servo mechanism reduces the need for dramatic pedal pressure. The GST transmission enables smooth forward to reverse directional changes and precise control of the eight forward and reverse gears.

Kubota/888-458-2682

For more information, circle 199



DINGO'S STUMP GRINDER QUITE A SIGHT

I witnessed a demonstration of Toro's Dingo TX 425 compact utility loader's stump grinder attachment and Toro just tore it up. In just a few minutes and maybe a half dozen cuts, this unit had dug a hole big enough for three kegs of beer. The grinder has a 17-in. cutter wheel with 12 cutting teeth, a wheel speed of 2,000 rpm, and a tooth tip speed of 148 ft. per second—all

of which combines to dig a big hole while the operator looks like he's comfortable enough to have a sandwich. You can position the wheel index at a 30-degree angle too, to get at those troublesome roots.

The operator showed me how easy it is to attach tools to the Dingo; even I can turn two locking pins and connect two hydraulic lines. Key also is that you can fit the Dingo in places where traditional grinders can't go—that's saving money and time.—Eric Schroder

The Toro Company/
800-344-8676

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Circle 113 on Inquiry Card

Maintaining the Grounds



CLEANER FILLING

The new 5-gal. EZ Fueler™ makes operation of any 2-cycle powered equipment easier, safer, and cleaner says manufacturer CCI Products.

The product's dual-chambered fueling system mixes 2-cycle oil and gasoline precisely and cleanly. Different 2-cycle powered tools and equipment often require different fuel mixtures; achieving precise oil-to-gas mixtures protects engines.

With the EZ Fueler setting a dial to the desired setting is all it takes to meet any manufacturer's specifications, whether it is in ounces, milliliters, or ratios. Spill-prone funnels and measuring cups are not needed. Environmentally responsible, the product features a fuel spout system that meets the California Air Resources Board's strict spill prevention standards.

CCI Products/877-224-7763

For information, circle 193



ROUGH CUTTER

Hustler® Turf Equipment has introduced its Hog™, a mower deck for those areas you only need to maintain a few times a year. It features a 48-in. single blade deck that cuts anything it can bend over, says Hustler.

The zero-discharge deck has 1/2-in. x 1-in. bar stock all the way around and reinforced side walls; the 5/16-in. blade has swinging blade tips for safety and a hazard-jumper™ center section. Tires are foam-filled to prevent flats.

The Hog deck is mounted on a Hustler ShortCut® tractor so you can change decks to a finish mower if desired.

Hustler Turf Equipment/800-395-4757

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Heftee Industries/800-755-7540

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Maintaining the Grounds



TOWABLE SCRAPER

Move earth with your utility tractor with Hoelscher's 3/4-cu. yd. towable scraper. The model 750 unit is designed to be pulled by 35 to 50-hp tractors and cuts 60-in. wide. It can carry material from one location to another without dragging across sidewalks, turf, etc. The operator has hydraulic control of the bowl to spread or stockpile material. The pull-type design and large tires can provide leveling capability.

Hoelscher Inc./620-562-3575

For information, circle 196



MINI-EXCAVATOR

With a maximum digging depth of 8 ft., 6 in., Thomas Equipment's T-15S can dig more than a foot deeper than most other mini excavators in its class, says the manufacturer.

Weighing 3,307 lbs., the T-15S is powered by a 17-hp liquid-cooled diesel engine and delivers more than 3,172 lbs. of breakout force. The unit provides operator comfort, with noise levels of less than 80 dBA inside the cab and hydraulic pilot-operated joystick controls. If desired, the T-15S can be equipped with a selector valve that allows the operator to quickly change to either an ISO or SAE control pattern. To help prevent mishaps, a safety lock system prevents unintentional operation of the joysticks.

Designed for work in confined areas, the product has an overall width of 39.4 in. The long track length, with 44.5 in. between the idler sprocket centers, helps decrease ground pressure and increase stability.

Thomas Equipment/866-238-6844

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First Products, Inc

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www.1stproducts.com

Circle 116 on Inquiry Card



TRACK TRENCHER

A Cat C-12 powers the Vermeer T1055 Commander track trencher with terrain leveler attachment that works in many applications. This machine features a hydrostatically controlled cutting drum, counter rotating hydrostatic tracks, an ergonomic operator's station, TEC 2000.2 electronic system, and notable warranty program.

Vermeer/888-837-6337

For information, circle 197