**TURF STRESS AID**

A liquified extract of sea plants called Panasea enables turf to withstand heat, drought and traffic stress, according to the manufacturer. The micronutrients and natural growth hormones (cytokinins) in the liquid strengthened turf root systems when applied at a rate of one ounce per 1,000 square feet during tests at Virginia Polytechnic Institute. Superintendents have reported the extract from South Atlantic Ocean seaweed helps ball marks and cup changes heal faster and makes bentgrass in the triplex ring on greens withstand mower traffic. Other benefits attributed to the product include:

- Better, longer-lasting color and faster recovery in disease-damaged turf.

**ATV SPORTS PTO**

This coming April Yamaha will introduce a version of its four-wheeled all terrain vehicle (ATV), the Moto-4, with rear power take off (PTO). The new model will be called the Terra-Pro. The first attachments for the unit include two rotary mowers and two sprayers. The company plans to develop a full line of PTO-driven attachments in the future.

The 16 hp ATV will produce 10 PTO hp at 2,000 rpm and utilize a standard one-inch drive. The rear-mounted mowers include a 48-inch fine-cutting rotary and a 42-inch rough-cut rotary. The spray units will come in 50 gallon and 100 gallon tank sizes. A choice of hand-held nozzles or 15- to 24-foot booms will be available for either size tank. Yamaha already offers a choice of trailers for its four-wheel ATVs.

**BERMUDA GROWTH REGULATOR**

Hybrid bermuda grows lower and slower after treatment with Scotts Turf Growth Regulator Plus Fertilizer. By altering the balance of growth hormones the product cuts vertical leaf growth by two-thirds for up to eight weeks. Instead, shoots and leaves tend to grow more horizontally creating a denser turf with lower fertilizer requirements.

The denser turf is also greener and grows primarily below the level of mower blades. The volume of clippings is reduced by three-fourths as well. Scalping is less likely with the low-growing treated turf.

The material is root-absorbed so rainfall during or following application will not reduce its effectiveness as it would foliar-absorbed growth regulators.
PRESSURE REGULATING VALVES

Reducing the pressure on drip and low-volume sprinkler systems has been simplified by Buckner's 20120 series of pressure-regulating bronze valves. Eliminating the need for a separate pressure regulator, these valves can be set to control outlet pressures between ten to 100 psi with flow rates as low as one gpm. They will maintain pressure settings even with changes in flow.

The unique valve has no side-mounted external regulators. All porting and regulation takes place within the bronze casting that fits on top of the valve. Downstream pressures can be set with or without electric power. A pressure gauge is mounted on each valve. This series of valves is available in sizes from 3/4-inch to 3-inches.

BUCKNER
Circle 151 on Reader Service Card

PRE-ENGINEERED SHELTERS

More than 20 different styles of park shelters and recreational buildings are available from Poligon, ready for installation. The vandal-resistant tubular steel columns and all other components are pre-sized, fabricated and pre-welded for "erector-set-type" construction. They range from simple covered tables to concession buildings with restrooms.

A variety of pre-manufactured wall and roof panels can be attached to the tubular steel frames. By combining basic frames with assorted panels a wide range of buildings can be constructed. All components are designed to resist vandals and exposure to all types of weather.

POLIGON, DIV. OF W. H. PORTER, INC.
Circle 157 on Reader Service Card

OUT-FRONT ROTARY

High-speed commercial mowing is the purpose of Gravely's Pro Master out-front rotaries. The highly-maneuverable mowers have a zero turning radius for trimming and floating deck assembly to follow ground contours and ride over curbs. The 50- or 60-inch cutting decks are easily raised with either a manual winch or hydraulic lift.

Both 18 and 20 hp models feature safety switches to stop the engine when the operator leaves his seat and to prevent starting with the mower or transmission engaged. The instrument panel includes an hourmeter, voltmeter, oil pressure warning light, fuses, choke and throttle. Instant forward and reverse gearshift and five-gallon gasoline tank reduces the number of stops to a minimum.

The cutting height is adjustable in one-half-inch increments from 1 to 4 1/2 inches. Options include a 44 gallon clipping removal system, all-weather cab, 44-inch power brush and two-stage snowblower. The units have a two-year limited commercial warranty.

GRAVELY INTERNATIONAL INC.
Circle 146 on Reader Service Card
**PRODUCT UPDATE**

**LINE CUTTER**

If staff shortages prevent frequent field painting, the athletic field line cutter might be the answer. A 3 hp Briggs & Stratton engine powers a set of blades which cut a three-inch wide stripe to any required depth. The unit provides a long-lasting stripe which eliminates time-consuming remarking of lines prior to painting.

Bunton recommends the line cutter for baseball foul lines, soccer fields, football fields and other sports fields where clear lines are required. The device can also be used to remove turf-damaging residues in the soil caused by repeated applications of marking paints and chalks.

**BUNTON CO.**  
Circle 148 on Reader Service Card

**UPRIGHT BENTGRASS**

After more than ten years of testing, Tee-2-Green has released the first quantities of PennLinks bentgrass seed. The blades of the new bentgrass are more upright than its predecessors, says Pennsylvania State University turfgrass breeder Dr. Joe Duich. This characteristic provides a truer ball roll and reduces grain on golf putting greens.

The amount of seed available is limited and Duich says most of it will go to new golf course construction and to the courses which have been testing PennLinks the past few years.

**TEE·2·GREEN CORP.**  
Circle 149 on Reader Service Card

**CONVERT YOUR PICKUP INTO A DUMP TRUCK**

- Easy installation—just fasten six bolts and it's in
- Steel bed rolls on jam-proof tracking system
- Complete unit fits inside existing bed and is closed in by tailgate
- Available in 6 and 8 foot units for full size American pickups and a 7 foot unit for compact and imported trucks
- Controlled dumping action in BOTH directions ensures safe, efficient operation

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**PRODUCT UPDATE**

**DEEP AERATOR**

The Verti-Groove is a new concept in turf aeration. The unit removes three thin slices of soil at one time. The resulting channels, from one to six inches deep and 12 inches apart, open up the soil for entry of air and nutrients. The device cuts through compacted or impervious layers of soil to restore drainage and deep root growth. These narrow channels, from 3/8 to 5/8 inches wide, can be backfilled with sand or the broken-up slices.

The Verti-Groove contains no moving parts to break or fail. The hardened, stainless steel slicing blades and the high carbon steel lifting blades can be pulled through the soil by most turf tractors or mowers.

**WOOD BRIDGES**

Pre-engineering has cut the cost of expensive-looking wood bridges from Intexx. Designed to enhance the beauty of parks or golf courses, the laminated wood bridges are completely assembled prior to delivery. The customer simply lifts the bridge off the delivery truck and sets it on anchor bolts during installation.

Standard models are four, six or eight feet wide and are designed to support a 12 psf dead load or 85 psf live load. The bridges can be easily modified for light vehicular traffic. Custom designs are available.

The wood is kiln-dried and stress-graded prior to lamination with waterproof adhesives. All critical members are treated with preservatives.

**SUPERSORBENT GRANULES**

Keep newly-planted sod or seed moist longer with water-storing polymer granules. Broadleaf P4 granules mixed into the rootzone expand as they absorb water. When the surrounding soil is dry, the granules still contain water reserves for plant roots.

This stored water increases seed germination and seedling survival, particularly in hot, sandy soils where irrigation water is rapidly lost to evaporation and gravitational drainage. It also helps turf survive drought periods.

Application rate depends upon the depth of incorporation of the material. Roughly eight pounds of Broadleaf P4 should be mixed into 1,000 square feet of surface for each inch of depth.
RUST AND EXPOSED GEARS ARE A THING OF THE PAST WITH THE EV- N-SPREAD FROM EARTHWAY. THE TUBULAR ALUMINUM FRAME AND POLY- MER HOPPER ELIMINATE THE CORROSION THAT OFTEN Renders OTHER SPREAD- ERS USELESS AFTER A SHORT TIME. UP TO 50 LBS. OF GRANULATED MATERIALS CAN FIT IN THE LARGE HOPPER.

THE SPREADER’S PERMANENTLY-LUBRICATED GEARS ARE ENCLOSED TO SEAL OUT DAMAGING GRIT AND MOISTURE. PNEUMATIC OR SEMI-PNEUMATIC TIRES PROVIDE SURE TRACTION AND DISTRIBUTE WEIGHT EVENLY ON THE TURF.

AN ON/OFF CONTROL HANDLE WITH INFINITE SETTINGS OPERATES THE SELF- CLEANING VOLUME CONTROL. A STAINLESS-STEEL AGITATOR AND POLYMER DISTRIBUTION DISC COMPLETE THE COMMERCIAL SPREADER DESIGN.

EARTHWAY COMMERCIAL PRODUCTS
Circle 154 on Reader Service Card

VERTICUT SYSTEM

THATCH MANAGEMENT IS AN IMPORTANT PART OF SPORTS TURF MANAGE- MENT. AGGRESSIVE KENTUCKY BLUEGRASSES AND HYBRID BERMUDAGRASS- ES UNDER HIGH FERTILITY PROGRAMS REQUIRE PERIODIC THATCH REMOVAL. NATIONAL’S VERTICUT SYSTEM PROVIDES HIGH-SPEED THATCH REMOval FOR LARGE AREAS.

FIVE 30-INCH-WIDE VERTICUT REELS CAN BE SET LOW FOR THATCH REMOval OR PREPARATION FOR OVERSEEDING. THEY CAN ALSO BE SET HIGH FOR BREAKING UP AERIFICATION PLUGS. THE BLADES ARE HEAT-TREATED FOR LONG LIFE.

THE VERTICUT REELS ARE MOUNTED ON THE SAME FRAME AS NATIONAL’S 30-INCH CUTTING REELS. BOTH ARE PTO-DRIVEN BY TRACTORS WITH 25 TO 50 HP. HYDRAULIC LIFT FOR CUTTING UNITS IS AVAILABLE.

NATIONAL MOWER COMPANY
Circle 155 on Reader Service Card

Cleanup with Harley

Rock Rakes and Pickers!

IF GOLF COURSES WERE BUILT BY GOLFERS, THEY’D INSIST ON HARLEY FOR FINAL SMALL STONE REMOval AND SEED BED PREPARATION.

IF YOUR COMPETITION WOULD TALK, THEIR SECRET WEAPON IS PROBABLY A HARLEY. FOR BUILDING OR RENOVATING . . . FROM PLAYGROUNDS TO YARDS . . . RACETRACKS TO BEACHES . . . THE EASIEST, FASTEST AND MOST ECONOMICAL ONE IS THE HARLEY.

ASK A HARLEY OWNER WHAT THEY THINK? YOU’LL HEAR A VERY PROFITABLE STORY! CLEANUP WITH HARLEY. GET ALL THE FACTS FOR YOURSELF! JUST CONTACT US.

The Unique Tool... There is nothing like a Harley!