

GREEN INDUSTRY SHOWCASE

Lightning detection system spots dangers at 25 miles

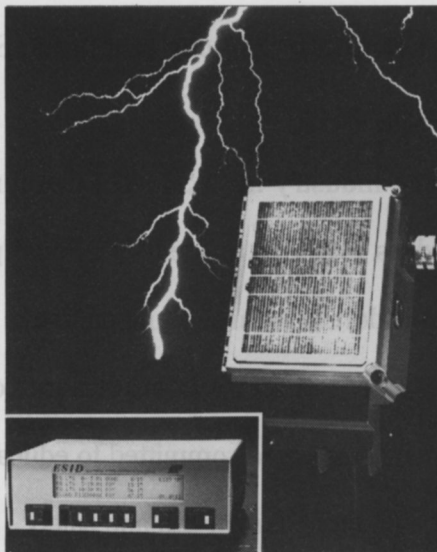
The 1992 Masters Tournament was the first in-practice testing ground for a new technology developed to detect and range lightning within 25 miles of a golf course.

The patented technology was developed by Lightning Location and Protection (LLP), which was recently purchased by the Toro Company's Irrigation Division.

The system, called the Electrical Storm Identification Device (ESID), was first put into public practice at the Masters in Augusta. Midway through the third round of Saturday's play, the sign-boards carried warnings of threatening weather nearby. About 30 minutes later, with no rain in sight and the skies uniformly overcast, the lightning sirens began to sound.

Neither the spectators nor the television commentators could understand the reason for the sirens; it seemed like just another cloudy day. But within 20 minutes, the rains came, complete with thunder and lightning.

Play was suspended with the detection of one flash of lightning, which struck 14



miles away from the course. Twenty minutes later, the big rains came and 26 flashes were seen in a span of 15 minutes.

The ESID also indicates when it is safe to resume play.

Toro and Lightning Location and Protection have entered into a joint agreement, under which the Irrigation Division will market and sell the ESID units manufactured by LLP.

ESID is described as a rugged, solar-powered, omni-directional short-range thunderstorm sensor.

It "looks" for electrical and optical energy emitted by lightning. Detection and analysis hardware is installed at ground level or on a rooftop. The system's "internal logic" system contains algorithms with which the ESID identifies the unique wave-form signature characteristic of lightning. These algorithms coincidence the energy pulses, or determine the time-relationship, and therefore the common source of both pulses. This final step ensures the reliability of a lightning report.

ESID estimates the range of cloud-to-ground lightning.

The unit indicates that lightning is either overhead; 0-5 miles out; 5-10 miles out; or 10-25 miles out.

This information is especially valuable when considering that cloud-to-ground lightning can move laterally a distance of 10 miles.

Circle No. 191 on Reader Inquiry Card

SHOWCASE PRODUCT REVIEW

Heavy duty sweeper mounts to lighter tractor frames

Sweepster, Inc. has introduced the new Model M18 sweeper for lawn and garden tractors.

The M18 mounts to most popular lawn and garden tractors with a minimum of 10 hp. The mechanical sweeper is driven by the tractor's front or mid-PTO, by a constant-velocity drive shaft.

Standard features include: 18-inch wide sectional brush available in polypropylene, wire or 1/2 poly-1/2 wire; manual angle change; electric brush lift and rear casters. Options include: side-mounted brush casters to prevent turf scalping during thatch



removal and storage stands which mount in place of side casters.

Jim Koch, Sweepster Product Manager, says the sweeper's weight might make some question its sturdiness.

"Just because this sweeper weighs less doesn't mean it's not heavy duty," says Koch. "We've incorporated the technology from our larger brooms into the M18. The heavy-duty center gearbox was custom-designed for this special application and extensively tested to ensure a durable low maintenance driveline."

Parallel linkage mounting and rear casters allow the brush head to oscillate sideways and up and down along contours.

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PRODUCT REVIEW

Motor oil for water-cooled and air-cooled engines

Penzoil's Premium Multi-Purpose 2-cycle oil can be used in water-cooled and



air-cooled small engines.

Premium Multi-Purpose 2-cycle oil is recommended for all 2-cycle filling for up to 100:1 fuel-to-oil ratio or requiring an NMMA/BIA TC-W or TC-W II certified lubricant.

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Portable pumps remove water from traps, low areas

Extended flanges have been added to Otterbine Barebo's Floating Portable Pumps, making hose attachment easier.



These self-priming pumps are centrifugal dewatering pumps. They are able to start in three inches of water, and are designed to move large amounts of water.

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Improved buffalograss turf seed available in 1993

The Native Turf Group is making two new cultivars of buffalograss seed available to turf managers and golf courses for field testing in 1993.

In addition, several new cultivars of improved buffalograss are undergoing continued evaluation this year and will be available for commercial use in 1994.

The group says buffalograss is rapidly gaining favor with turf managers concerned about pesticides, water use and labor costs.

Its low-growth reduces mowing requirements, and the turf requires less water and pest control than bluegrass, bentgrass or bermudagrass.

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Front mower line for golf, landscape management

The F2400 front mower is equipped with a 24-hp diesel engine. The 4-cycle, 3-cylinder engine is designed and manufac-



tured by Kubota.

The F2400's hydrostatic transmission works together with a front differential lock feature and 2- or 4-wheel drive to provide powerful traction and smooth operation on uneven or slick terrain.

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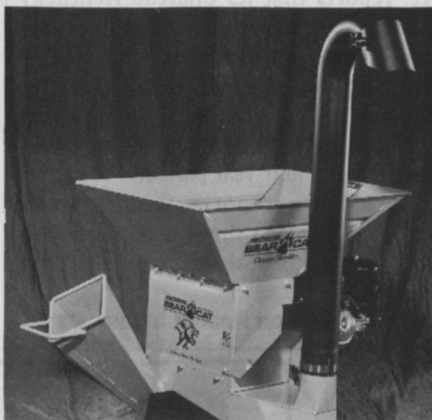
New fan blower fits entire chipper-shredder line

An exclusive new fan blower fits all Bearcat 5- and 8-hp chippers and shredders.

The optional attachment provides a powerful air stream, which makes debris loading

easy.

An adjustable spout allows you to change direction of material flow, so debris is deposited just where you want it.



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Potassium-based copolymer for landscaping, hydroseeding

Evergreen Polymers supplies the 400 Series of Stockosorb potassium-based copolymer.

The product is available in several crystal sizes for general purpose landscaping, growers and for hydroseeding.

The product tends to resist the salinity factors in soils and will perform even in reclaimed water.

Mezotrace is a micronutrient that is a source of a wide range of elements and micronutrients. It is uniform and allows for a good carry-over inventory of trace elements in a given soil.

Circle No. 198 on Reader Inquiry Card

Tree pruner now equipped with self-oiling mechanism

A new, patented automatic oiling system has been added to the Power Pruner from Technic Tool Corp.

The Power Pruner is the only portable telescoping pruner available, according to the company. The oiling system can be retrofitted to all Power Pruners on the market today. The pruner reaches up to 17 feet, is lightweight, and has a 7- to 11-foot drive shaft.

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PRODUCT REVIEW

Kentucky bluegrass ranks high in turfgrass trials

Fine Lawn Research of Lake Oswego, Ore. reports that its Chateau Kentucky bluegrass averaged fifth among 67 bluegrasses, based on turf trials conducted by the National Turfgrass Evaluation Program.

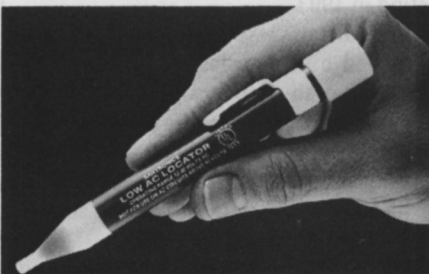
The evaluation program tested bluegrasses over a four-year period.

Fine Lawn reports that Chateau Kentucky bluegrass shows good shade performance, and is wear tolerant and disease resistant.

Circle No. 200 on Reader Inquiry Card

Circuit locator can solve tricky irrigation problems

The Santronics Low AC Locator helps determine the presence of 12-90 volts in tricky irrigation maintenance situations.



The locator senses 12-90 AC volts through insulation without disconnections, current flow or contact with the conductor. If AC voltage is present, the tip glows red.

Circle No. 201 on Reader Inquiry Card

Self-propelled lawn vacuum converts to leaf blower

Yard-Man's 5-hp, self-propelled lawn vacuum can be easily converted to a powerful leaf blower.



The optional blower kit requires no tools for quick conversion.

An optional hose kit can be used to clean hard-to-reach areas, such as shrubs or gutters.

The 30-inch wide nozzle adjusts in height. Handle-mounted controls include a safety grip drive/clutch lever. Semi-pneumatic wheels provide easy mobility.

A six-bushel collection bag is included.

Circle No. 202 on Reader Inquiry Card

Look for new turf fertilizer with just two ingredients

A new fertilizer is on the way from Great Salt Lake Minerals, produced in cooperation with Farmland Industries.

The fertilizer, called healthy Turf Blend Fertilizer, consists of just two ingredients, DAP (diammonium phosphate) and SOP (sulfate of potash).

The result is a four-nutrient formulation—N-P-K-S (6-15-34-11)—the company says is ideally suited for turf.

Circle No. 203 on Reader Inquiry Card

PULLS TIGHT AROUND TREE

PALM TREE COLLAR

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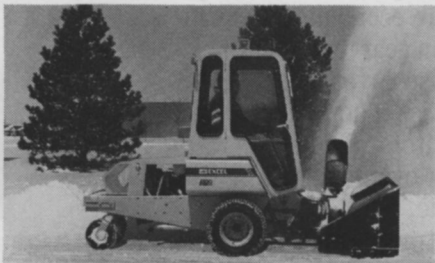
Circle No. 105 on Reader Inquiry Card

PRODUCT REVIEW

Snow removal kit converts out-front mowers easily

Excel Industries, Inc. offers a variety of snow attachments, including a dozer blade, snow thrower, rotary broom and cab enclosure. Tire chains, wheel weights and rear weight kits are also available.

The Hustler V-Blade attaches quickly to the two-point tool bar and cuts a 60-inch swath. The dozer blade is available in lengths of 60- or 72-inches. The heavy-duty snow thrower is PTO driven and hydraulically controlled.



Circle No. 204 on Reader Inquiry Card

New fungicide controls snow mold, brown patch

Grace Sierra Horticultural Products Company has introduced Penstar PCNB



75WP and 10G turf fungicides for long-lasting control of snow mold, brown patch and other key turf diseases. Both have the same label and use rates as other PCNB products. Penstar 75WP is a preventive, wettable powder soil fungicide; 10G is available as a granular. Final registration was pending at presstime.

Circle No. 205 on Reader Inquiry Card

Leaf mulcher cuts a wide path, mows up to four acres/hour

The Woods new Model 80 Rotary Mower/Shredder operates by belt drive, and mows up to four acres per hour, according to the company.

A shock absorbing belt drive and free-swinging twin blades offer versatility and cut heavy brush, shred stalks, or mow



weeds and grass. The Model 80 is for tractors rated at 30- to 60-hp, 540 PTO.

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Circle No. 127 on Reader Inquiry Card

POLLUTION CLEAN-UP INSURANCE FOR COMMERCIAL LAWN CARE FLEETS AND EQUIPMENT

Through the National Lawn Care Risk Purchasing Group, Inc., Lawn Care firms can now purchase pollution clean-up insurance for spills which are the result of an automobile accident.

Reasonably priced clean-up insurance is available for all sizes of trucks and production equipment providing up to \$100,000. in annual clean-up costs.

Coverage is provided by Lloyd's of London and is subject to a \$2,500. deductible per accident. This program will not replace your automobile insurance—it will fill a void in your current policy. Consult your Agent or Broker to verify that your current policy does not provide pollution clean-up protection.

For further details contact:

Richard P. Bersnak, Jeanne Bartkus, or Dan Remley at:

**M.F.P. Insurance Agency, Inc.
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