Circle the Reader Service numbers of those items of interest to you.
GET MORE FACTS
Now Toro's popular 570 Family gives you even greater flexibility

New 570-4P spray head clears taller grasses

With a full 4¼" pop-up to the nozzle, Toro's new 570-4P spray head effectively clears tall grass and low ground cover, making the 570 Family more versatile than ever. Now you have a full range of pop-up sprinklers: 2", 3", 4¼", 6" and 12", plus shrub risers. The new 570-4P has superior, positive retraction, with a stainless steel spring to make sure it pops down completely out of sight when not in use. And it's designed to handle all kinds of water sources, thanks to new, improved seal and minimal self-flushing action. An all-new body design includes Toro's exclusive "Conilip" seal and cap configuration. The screw-on cap makes it repairable from the top of the sprinkler. It accepts all 570 nozzles and filter screens, including Toro's full-range of nozzle angles: 0°, 10° and 35°. Now, more than ever, you'll find the answer is Toro!
golf courses, Turfmat controls hillside erosion, can be used to patch dead grass areas, and grows in difficult environments such as dry or sandy soil.

It is available in convenient roll packaging, is easy to cut and shape, and is lightweight.

**Circle No. 199 on Reader Inquiry Card**

A big air broom from Atwater Strong

Atwater Strong introduces the Big Blast Model 16-BTW Low-Blo air broom two-way blower. It is designed to clean large areas of leaves and debris and can be fitted to most work carts or two-wheeled, tow-behind trailers.

The Low-Blo’s 16-hp cast-iron engine rotates an 18-inch, 8-bladed magnesium fan at 3600 rpm and develops 5000 cubic feet of air per minute at a blast velocity of 175 mph. It sweeps a 25-foot swath.

With a bed adjustment of 11 to 26 inches in height, the Low-Blo’s exclusive two-way operation permits direction of the air blast.

**Circle No. 200 on Reader Inquiry Card**

Fertilization possible with new Chemigator

Performance Products, Inc., offers a simplified venturi injection unit that allows the application of fertilizers and chemicals directly through a lawn and garden or agricultural irrigation system. It is called the Chemigator.

As water passes through the Chemigator a vacuum develops and pulls the fertilizer out of the container into the main stream. The built-in bypass valve allows for adjustment of the liquid additive. A sight gauge shows how the adjustment is affecting the additive rate. The unit has no moving parts, and no electric power is needed.

**Circle No. 201 on Reader Inquiry Card**

PumpTec imports portable sprayer

The Arimitsu portable power sprayer, used for many years in Japan, is being introduced to the U.S. by PumpTec. The Arimitsu is available as a gas or electric unit and is capable of up to 300 PSI at 1 GPM.

The compact sprayer weighs only 11 lbs. and comes complete with eight feet of suction hose, 33 feet of discharge hose, and spray gun. It can be used to apply chemicals to plants, coatings to poly, or it can serve as a pressure washer for smaller cleaning tasks such as lawn maintenance equipment.

**Circle No. 202 on Reader Inquiry Card**

Cash in on the current Turf King rollback to the 1981 price, while enjoying all the latest features: Power-driven reels; hydrostatic traction with foot-operated treadle to match mowing speeds to terrain; ±25° vertically articulated reels for a smooth, quality cut; a 14-hp, cast-iron engine; hinged hood for easy service access; and a cushioned seat and fixed sulky for a secure, comfortable ride.

Turf King ... in 76-inch and 84-inch sizes. For a premier cut available only at your participating Jacobsen Distributor. Offer expires August 1, 1985.

Jacobsen Division of Textron Inc., 1721 Packard Avenue, Racine, Wisconsin 53403.

**Circle No. 125 on Reader Inquiry Card**

AER-WAY turf aerifier is a low maintenance, low energy aerifier designed especially for hard compacted traffic and playing areas and sod establishment. It can be used for parks, sports fields, cemeteries, school grounds, estates, and wherever appearances are important.

There are several model sizes available to handle jobs large and small. The tines are available in either a 41⁄2 or 61⁄2 in. length.

The unique patented design fractures the soil between the tines enhancing the soil profile and its natural capillary action. This allows air moisture and fertilizer to get to the root system maximizing growth and greener turf.

The tufts of grass produced by the aeration disappear with the first cutting. The AER-WAY now comes standard with a full width weight box, tow bar and parking stands.

Contact your nearest HOLLAND office for the name of your nearest AER-WAY dealer.

NEW DEALER INQUIRIES ALSO WELCOME

*Ask about our optional no-tear-4 bentgrass rollers.*

Holland Equipment Limited, P.O. Box 339, 20 Phoebe St., Norwich, Ontario N0J 1P0 Telephone (519) 863-3414

Holland Hitch Western, Ltd., Cloverdale, B.C. V3S 5K1 Telephone (604) 574-7481

Holland Hitch of Texas, Inc., Wylie, Texas 75098 Telephone (214) 442-3556

**Circle No. 122 on Reader Inquiry Card**
New Bunton spreader cuts a wide swath
The new Bunton multi-purpose commercial spreader evenly distributes grass seed, fertilizer, or sand over a 16-foot wide path. The spreader features a 130 lb. capacity, stainless steel hopper and blower/spreader, and heavy gauge steel handles.

The quiet 2.3 hp, 4-cycle Robin engine moves the new Bunton spreader at speeds up to 2 mph, and finger-tip steering provides good maneuverability.

Circle No. 203 on Reader Inquiry Card

Toro Irrigation's new sprinkler heads
Toro's XP-300 family of sprinkler heads was designed as a companion to Toro's Stream Rotor and features a low precipitation rate which causes water to be applied slowly. A matched precipitation rate offers the flexibility of valving part circle and full circle sprinklers together.

The XP-300 sprinklers' stainless steel retraction assures positive pop down of the head, and a wiper seal keeps dirt out. Large screens protect the nozzles from clogging. Toro says these sprinklers are designed for both residential and commercial use.

Circle No. 204 on Reader Inquiry Card

Coming Next Month
Landscape Manager's Guide IV
Insect Control

Slash labor costs with the DUCKBILL® Tree Anchoring System

One man can anchor a tree with 3 Duckbills in minutes
Robert L. Swain, vice president of the Dawson Corporation, landscape contractors in Windsor, NJ, said, "We used your Duckbill Earth Anchors to hold a large number of trees in place after planting. This cut the labor time by such a drastic margin that we saved a week's time with a four man crew!"

Landscape architects nationwide are specifying Duckbills on more and more projects because Duckbills are the easiest and fastest, the strongest and the safest because there are no rigid rods or hard steel loops left above ground to injure people or pets or damage motorized equipment. Only a small pliable loop remains above ground.

Duckbills are used to anchor trees, sheds, fences, park benches, tables, many other things that can be stolen or blown away. There are four sizes, from 250 to 5,000 lbs. holding capacity, to meet all anchoring needs.

Duckbills are driven into the ground using a drive rod and heavy hammer till only the cable loop remains above ground. An upward pull on the cable rotates the Duckbill into a load lock position, like a toggle bolt in undisturbed earth. When anchoring is no longer needed, simply cut cables at ground level, leaving no sign anchors were used.

For complete details call or write today.
Foresight Industries Inc., P.O. Box 4067, 1603 Capital Avenue, Suite 307, Cheyenne, WY 82003. Phone (307) 635-4163.
**PROBLEM SOLVERS**

by Balakrishna Rao, Ph.D.

**pH in Florida turf**

**Problem:** What is your opinion on the importance of soil testing the pH value in turfgrass culture and management in Florida? (Florida)

**Solution:** Soil testing is an important management tool in turfgrass culture. The pH of soil solution determines the solubility and, thus, the availability of nutrients for root absorption. Under excessively alkaline or acidic conditions, turfgrass may not respond properly to a fertilization program. Corrective procedures would depend upon the pH, soil texture and turfgrass species.

Reports from the University of Florida indicate that turfgrasses differ in their adaptability to soil acidity. For example, centipede and bahia will grow in a more acidic environment (pH of 5.0 - 6.0) that St. Augustine or zoysia, which grow best at a near neutral (pH of 6.0 - 7.0) soil reaction.

The following table should be helpful in understanding turfgrass species adaption to pH in your area.

**Desirable pH Ranges for Lawn Grasses in Florida**

<table>
<thead>
<tr>
<th>pH 5.0-5.4</th>
<th>Carpet, Centipede, Bahia</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH 5.5-5.9</td>
<td>Carpet, Centipede, Bahia, Italian Rye</td>
</tr>
<tr>
<td>pH 6.0-6.4</td>
<td>Bermuda, Fescue, Italian Rye, St. Augustine, Zoysia</td>
</tr>
<tr>
<td>pH 6.5-6.9</td>
<td>Bermuda, Fescue, St. Augustine, Zoysia</td>
</tr>
</tbody>
</table>

**Alternative to dormant oil**

**Problem:** Usually, because of the weather conditions, we are unable to provide a dormant oil application to a number of our clients' properties before bud break or while the trees are dormant. Is there something we can use for treatment after the foliage begins to flush? Any recommendations would be greatly appreciated. (New Jersey)

**Solution:** The general recommendation for dormant oil application is two to three gallons per 100 gallons of water. This should be applied prior to bud break to prevent injury to foliage.

Since you were unable to apply this before bud break, you can apply a summer oil-malathion mix (two quarts of oil, plus 1.5 pints malathion per 100 gallons of water), any time from bud break and throughout the season. This will aid in preventing a build-up of sucking insects such as aphids, mites and scales.

**CAUTION:** Read the label and follow the directions! Reports indicate that plants like sugar maple, Japanese maple, beech, black walnut, hickory, nut trees (in general), red bud, and Colorado blue spruce are sensitive to oil. Dormant oil will remove the bluish waxy bloom from Colorado blue spruce needles when applied during the dormancy period. They will normally produce a new wax coat in four to six weeks. The 'Canart' juniper is sensitive to malathion in the summer oil treatment.

Injury is more likely to occur if the plants are under environmental stress such as drought. Therefore, be careful if you are considering a blanket treatment to all plants on a property.

Although summer oil can take care of a number of pests, foliar application of other insecticides may be necessary, as needed, during the insect activity period to manage the pest problem.

**Bird dropping control**

**Problem:** Would you please recommend some chemical or other means of how we can keep the birds from feeding on our blueberries and cherries? Their feeding doesn't bother us, but their excrement creates a mess. We would appreciate your comments in this regard. (New York)

**Solution:** Blueberries or even the small cherry plants can be protected from bird feeding by covering the plants with nylon nettings. This would be practical if you have only a few plants.

Mesurol 75% Wettable Powder insecticide is a bird repellant manufactured by Mobay Chemical Company and is registered for use on blueberries and cherries.

*Read the label and follow the directions for the dosage guidelines.* Apply Mesurol using conventional sprayers as a full coverage spray as cherries begin to ripen. Do not apply more than a total of three times per season to repel birds. Do not apply within seven days of harvest and do not graze animals in treated areas.
Whatever the task — hauling or turf-related — E-Z-GO has a complete line of utility vehicles with options to suit your special needs. Find out more about how we can help you cover a lot of ground.

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(404) 798-4311

If you’d like more information on E-Z-GO Utility Vehicles fill out and mail this form to: E-Z-GO, Director of Marketing, P.O. Box 388, Marvin Griffin Road, Augusta, Georgia 30913-2699.

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Company __________________________
Address ___________________________
City __________________________ State ___________ ZIP ___________
Phone ____________________________

Circle No. 114 on Reader Inquiry Card
HOFFCO takes a stand!

To give you the best full line of gasoline powered portable outdoor equipment.

Twelve trimmer/cutters equipped with everything from brush and/or weed blades to monofilament heads.

Each designed with HOFFCO QUALITY and RELIABILITY.

Dependable engines, long wearing clutches, sturdy transmissions and patented flexible drive shafts.

A 3-point suspension system (Guardian Triangle) on all bladed models for operator security and comfort.

Remember...we don't come apart when you need parts...we deliver. Our Parts and Service Program is a unique part of Hoffco's total selling program...

It works with you and for you.

Always First
Always Outlasts

36 Years...

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EVENTS

May
Arizona Turf, Landscape, and Irrigation Conference, May 2-4. Ramada Airport Resort, Phoenix, AZ. Contact Billie Reynolds, Arizona Landscape Contractors Association, P.O. Box 27312, Phoenix, AZ 85282. 602-968-8179.


JUNE
Univ. of Massachusetts Turf Field Day, June 26. Massachusetts Turfgrass Research Station, South Deerfield, MA. Contact Dr. Joseph Troll, Plant & Soil Sciences, Stockbridge Hall, Room 10, U. of Mass., Amherst, MA 01003. 413-545-2353.

International Turfgrass Society Conference, June 30-July 4. Avignon, France. Contact ITS, Agronomy Department, Virginia Polytechnic Institute, Blacksburg, VA 24061.

JULY

To insure that your event is included, please forward it, 90 days in advance, to: WEEDS TREES & TURF Events, 7500 Old Oak Boulevard, Cleveland, OH 44130.
STOP GRUBS FROM THE FIRST BITE TO THE LAST GASP.

Grubs are a hardy breed. They're tough to prevent and even tougher to get rid of once they start chowing down on the roots of your turf.

One thing that puts them off their feed is OFTANOL 5% Granular insecticide.

Another is new OFTANOL 2 Insecticide. It's a liquid formulation of OFTANOL, containing two pounds of active ingredient per gallon.

The nifty thing about OFTANOL, liquid or granular, is that it stops grub damage fast, even before it kills. After an application of OFTANOL, grubs stop feeding and the damage stops. Use it as a preventive, in the spring, or as a curative anytime grubs are a problem.

Grubs, one serious problem with two serious solutions. OFTANOL. Always read the label before use.
CLASSIFIEDS

RATES: $1.00 per word (minimum charge, $25). Bold face words or words in all capital letters charged at $1.25 per word. Boxed or display ads: $85 per column inch—1x (one inch minimum); $80—$3x; $76-$6x; $70-$12x. Agency commissions will be given only when camera-ready copy is submitted by agency. For ads using blind box number, add $5 to total cost of ad. Send ad copy with payment to Dawn Anderson, WEEDS TREES & TURF, 1 East First Street, Duluth, MN 55802.

BOX NUMBER REPLY: Mmmt, 120 W. 2nd St., Duluth, MN 55802. Please include box number in address.

BUSINESS OPPORTUNITIES

WANT TO BUY OR SELL a golf course? Exclusively golf course transactions and appraisals.

[Contact information]

with a background in the Industry, to own a well established Landscape Construction. Lawn Maintenance and Nursery Business, located in a Chicago Suburban area, consisting of the following: 6 acres of land, including 4 acres of 1,000 prime pasture 1.1 acres, wooded at 2-5 fingers, modern large office. 5 bay fully equipped garage and service shop, storage buildings, and a leased income building. All large, and small equipment necessary to operate this type of business, also truck mounted snow removal equipment, a ½ acre pond and paved road and lot, 2000 gal. diesel and gas tanks. A long list of prestigious clients with income of $800,000.00 to $1,500,000.00 annually. Over 25 years as an established business in the Industry. Huge growth potential. Terms available at low interest rates. Owner to stay on to help the right person establish themselves. This opportunity only comes along once in a lifetime, take advantage of this offer. For more details, please direct all inquiries to: W.H.N., 23612 N. Hwy. 21, Mundelein, IL 60060.

[Contact information]

FOR SALE

BUCKET TRUCKS, straight stick, corner mount and knuckle boom cranes. Sprayers, chippers, dumpers, staks, log loaders, crew cab chip box dumps, railroad trucks. 50 in stock. Sold as is or reconditioned. Odyke, Haithfield (Philadelphia area). 215-721-4444.

HYDRO-MULCHERS AND STRAW BLOWERS Now and used. JAMES LINDON CORPORATION, 3220 S. Jupiter Rd., Garland, TX 75041, (214)-840-2440(TX), (800) 527-2304 (except TX) TF


JACOBSEN HF-5—Hydraulic 5 gang with 6 blade rear and front rollers, wheel wts. and ROPS with canopy. 280 hrs. like new. Call (616) 887-7301, 7:00 AM to 5:00 PM—John Read.

EXCELLENT Ford 3600 tractor with Armstrong 18-4-16A rear and Firestom 9-00-10 front turf tires, $6350. Turf tires only $850. Deere 6 ft. 272 grooming mower like new $757. Lippscott, Fulton, Mo. 314-642-8646.

The perfect retreat!! 20 + acres with 650 feet of lake frontage, large home, barn, and beautiful pond and paved road and lot. 2000 gal. diesel and gas tanks. A long list of prestigious clients with income of $800,000.00 to $1,500,000.00 annually. Over 25 years as an established business in the Industry. Huge growth potential. Terms available at low interest rates. Owner to stay on to help the right person establish themselves. This opportunity only comes along once in a lifetime, take advantage of this offer. For more details, please direct all inquiries to: W.H.N., 23612 N. Hwy. 21, Mundelein, IL 60060.

[Contact information]

LAWN SEED. Wholesale. Full line of top quality grasses. Improved bluegrass varieties, fine fescues and fine bladed ryegrasses. We specialize in custom mixing. Olger Seed Company, 2705 Wingate Avenue, Akron, OH 44314. Call collect (216) 753-2259.

[Contact information]

TREES FERTILIZATION GUN tested on over a million square feet of trees and shrubs all over the country. Blade Reels, Ready to Mow, $11,500.00. C.O.D. Bowling Green Country Club, P.O. Box 988, Beech Bend Rd., Bowling Green, KY 42101.

Well established tree service located in the St. Petersburg, Florida area. Customers with sales in excess of $270,000.00 per year including equipment (optional). Call (913) 541-3888.

Well established Outdoor Power Equipment business located in the Tampa, Florida area. Receipts in excess of $280,000.00 per year. Call (913) 541-3888.

"TROUBLE SHOOTING IRRIGATION CONTROL SYSTEMS" Learn quick diagnosis and repair. Train yourself, train employees. Save valuable time with this very "un-technical" manual written in every day language. Lots of examples and diagrams for beginners or veterans. Tells ONLY what you must know about valves, simple electricity, meters. Send $15.00 prepaid to: "Repair Book", c/o Bill Derryberry, 4848 E. Fitchot, Phoenix, AZ 85018.

BULK LANDSCAPE MATERIALS HIGHEST QUALITY "LOWEST PRICES" DELIVERED WITHIN 48 HRS. THROUGHOUT CALIF. CALL FLORI BUNDA (209) 962-7040 OR WEST COAST MATERIALS, INC. (209) 847-3053

FOR SALE—VALAC HYDRAULIC DUMP TRAILER 14,000 POUND CAPACITY WITH CYLINDERS, HOSES AND JACK INCLUDED. BEACON HILL COUNTRY CLUB, ATLANTIC HIGHLANDS, N.J. 07721-2993.

[Contact information]

TREE SPRAYER—FMC/BEAN, VERY LITTLE USE, 1000 GALLONS, 50 GPM, 800 PSI, ELECTRIC HOSE REEL, SPRAY GUN, ROOT FEEDER, REIFLER. $1000.00. (203) 651-3450.

Wade Rain solid set irrigation for 40 acres; aluminum pipe (30) 3" x 40", (630) 2" x 40", 1300 ft. PVC mainline, 40 Buckner agricultural valves; 4 Buckner controllers; 380 Rainbow heads; 80 Endplugs; 22,500 ft. control wire. American Tree & Turf, Denver, (303) 986-6067.

SALE—SALE—SALE—Hannay 12 Volt Reel Motors, $100.00 (new) regular $160.00. FMC JOHN BEAN parts, sprayer, spray guns and pumps at discounted prices. HYPRO parts, pumps and accessories at 25% discount. HANNAY reel swivel joints, reel switches, and solenoids at discounted prices. TUFLEX FIBERGLASS TANKS and replacement parts at discounted prices. MEYERS pumps and parts at discounted prices. GREEN-GARDE JD-9 spray guns and spray hose at discounted prices. Call: Strong Ent., Inc. Collect (305) 264-5525.

HELP WANTED

SOD FARM MANAGER—500 acre Chicago-area operation seeks qualified manager. Involves production, irrigation, and harvesting. Excellent salary and benefits. Send resume to WTT Box 354.

Wanted: Qualified Turf Management Specialist, 5-years verifiable experience, two year education minimum. Job responsibilities to head turf management division including: Quality control, scheduling, estimating, buying, selling, budget preparation. We are an established lawn and landscape company with 70-80 employees specializing in institutional-commercial work-experience tremendous growth and need technically qualified personnel. Salary 15-20K. Contact Sarajane Ritz, Landcare Industries, 5850 S. MacDill, Tampa, FL 33611, Phone (813)-831-5530.

LANDSCAPE CONSTRUCTION FOREMAN—Established Michigan landscape company seeking an aggressive, responsible person for expanding market. Should be experienced in all phases of construction and have leadership skills. Advancement opportunities, excellent salary and benefits. Send resume to P.O. Box 372, Utica MI 48087.

North Houston area horticultural company is now accepting applications for qualified personnel to perform residential and commercial grounds maintenance. 3 to 5 years experience is required. Good benefits. Please send resume to Wakefield Seasonal Services Corporation, P.O. Box 2171, Conroe, TX 77305.

Tree and shrub specialist Chemlawn Services Corporation. Are you an ambitious person who is willing to take risks in a company growing at a 25% yearly rate, a company who has promoted 150 managers last year, a company which is the recognized leader in its industry? If so, you may qualify for an opportunity to join the Chemlawn, Illinois branch. Responsibilities will include sales and servicing our customers. This outstanding ground floor opportunity offers a salary, fringe benefits, continual job training and unlimited challenge. To find out more about this career opportunity, please write or call Chemlawn Services Corporation, 1103 W. Morse Ave., Schaumburg, IL 60193, 312-529-4200.