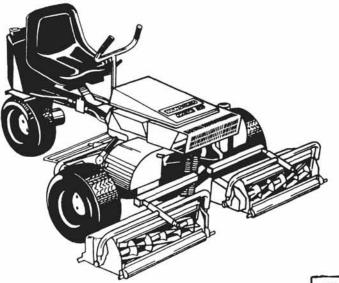
# RANSOMES TRIPLEX MOWERS OFFER SUPERB MOWING PERFORMANCE



For a FREE demonstration, contact:

#### Motor 180 with Go-Anywhere Three-Wheel Design

- · Low ground-hugging stability
- Big 7-1/2" wide drive tires
- Single-pedal hydrostatic control
- New three-wheel drive option
- · Three cutting units
- · 71" overall cutting width

RANSOMES

## WHERE GREAT IDEAS START

n	r	Q
	alawn	
E.V/		80701

Schwarzentraub Implement Inc. 1040 W. Jefferson Morton, Illinois 61550 Phone (309) 263-7322 CHIRISTENSEN POWER EQUIPMENT ING. 1500 W. NONEE MANIATIAN RO. FRANKFORT, & 80(3)

PHONE (815) 469-5898

WACKER

Wacker PT2A centrifugal trash pump with 2" intake/discharge, 5 hp engine and 235 gpm capacity. Other sizes available.

MARTIN IMPLEMENT SALES, INC. 16400 S. 104th Ave. Orland Park, IL 60462 (312) 349-8430



# SETTING NEW STANDARDS FOR PRICE AND PERFORMANCE!

If you're looking for a building contractor, Contact the professionals at:

TIMBERBUILT SYSTEMS, INC. P.O. BOX 218 CASCO, WI 54205



# TURF SPRAYERS

DU

# A low-profile turf sprayer designed to mount on a pick-up truck or turf vehicle.

100 or 160 gallon fiberglass tank. Engine or PTO power. Hypro-piston diaphragm spray pump.

57

# We Sell & Service THE FINEST BRANDS OF TURF EQUIPMENT

- BLOWERS & VAC SYSTEMS TORO<sup>®</sup>, OLATHE, TURF VAC, STERLING
- CHIPPERS , DRY WOOD DEBRIS OLATHE
- CHIPPERS, TREE
   OLATHE
- CORE PULVERIZERS
   OLATHE
- GRINDERS & SHARPENERS EXPRESS DUAL, FOLEY
- IRRIGATION PRODUCTS TORO<sup>®</sup>, WILKINS, RAINMASTER, PSI PUMP STATIONS, KIFCO WATER REELS
- MOWERS, REEL & ROTARY TORO<sup>®</sup>, ALLEN AIR CUSHION
- PNEUMATIC PRUNERS
   MAIBO

- POND AERATORS OTTERBINE
- SEEDERS & THATCHERS OLATHE
- SNOW BLOWERS TORO<sup>®</sup>, OLATHE



Complete In-Field Service Support

- SPRAYERS & SPREADERS SDI, HAHN
- SWEEPERS M-B CO., OLATHE
- TOP DRESSERS & SOD CUTTERS TURFCO
- TURF AERIFIERS TORO<sup>®</sup>, OLATHE
- TURF GROOMERS TORO<sup>®</sup>
- TURF VEHICLES EZ-GO



1170 W. Ardmore · Itasca, Illinois 60143



#### Upcoming Events — Mark Your Calendar

 July 19 — MAGCS Monthly Meeting at Woodbine G.C.
 August 1 — ILCA Annual Field Day at Ball Seed Co., West Chicago

August 8 — MRTF Field Day, Purdue University Agronomy Farm

August 13 — MAGCS Monthly Meeting at Tamarack G.C.

August 20 — ITF Golf Day at St. Charles C.C. & Geneva C.C.

Sept. 24 — MAGCS Monthly Meeting at Bull Valley G.C.

October 3 - MAGCS Monthly Meeting at Carillon G.C.

November - MAGCS Clinic

November 27-29 — Turfgrass and Ornamental Chemical Seminar at Purdue

December 4-6 — NCTE in Springfield

#### The MAGCS Golf Tournament Golf Results at Mt. Prospect Golf Club

Team Low Net

1st — Kerry Blatteau & Scott Bartosh - 57
2nd — Dr. Randy Kane & Bret Rush - 58
3rd — Craig Hoefflin & David Nadler - 60
4th — Brian Green & Fred Behnke - 60
Blind Bogey Winners
Bruce Schweiger (plus a nice gross 70)
Adolph Bertucci
Curtis Adams
Donald Hoffman
Brian Winkle
Thanks to Superintendent of Parks Fred Behnke and to Marty
Baumann, Golf Course Superintendent.

EVENT: Illinois Landscape Contractors Association's Annual Summer Field Day

- PLACE: Ball Seed Company, West Chicago, IL
- DATE: Wednesday, August 1, 1990

TIME: 8:30 a.m. - 4:00 p.m.

ILCA's Summer Field Day features 200 exhibit booths for dealers of tractors, lawn maintenance equipment, mulch, stone, concrete products, pots and containers, chemicals and fertilizers, nursery stock, greenhouse plants, and other green industry services. Business mixes with pleasure at Field Day. Scheduled are demonstrations of large and small equipment, tours of Ball Seed Company's trial beds of annuals, short talks on the state of the industry, what's new, and what's tried and true for landscape use, a grilled steak lunch with all the trimmings, popcorn and beverages, and the annual horseshoe tournament. An attendance of 2000 is anticipated.

For further information, contact ILCA at 708-932-8443.

#### Midwest Breezes

"The Ray Gerber Editorial Award" may not be given out this year due to the lack of our member superintendents writing articles. You have about 10-12 days after you read this note to write an article to qualify for this year's award. August is the last month to enter. The award was not given last year due to the fact that we had only three articles in contention and the Board of Directors decided that a minimum of 6 articles would be needed to award the prized plaque. Come on guys, write an article for your newsletter.

-----

Roxane and Bruce Williams were blessed earlier in June when their 8 year old son was not seriously injured or killed after being run over by a car. Their son spent several days in intensive care and then was released to go home after 4 days. Fortunately the car was driving slow and turning into the driveway and struck the boy as he was riding his bike on the sidewalk.

------

#### Chicago's BBS Turftalk on line!! by Russell Fink, CGCS

By the time you read this the newest tool for Golf Course Superintendents should be available. Turftalk is a bulletin board service for those of us in the turf industry who have computers. Before I explain how to use this service, I must acknowledge the initial financial supporters of this service. Many thanks to: **Sponsors:** 

Tamarack Golf Club, Illinois Lawn Inc., James R. Burdett,

J. W. Turf. Supporters:

Master of the Links.

Yearly fee supporters:

Neogen Corp., Agri-Diagnostics, E-Z-Go/Textron, CDGA.

Any person with a computer and a modem will be able to connect to Turftalk **free of charge**. All you need is a communication program (I use Procomm). Just call me at 904-4010 and I will send a copy to you. It is shareware so you only pay for it if you are satisfied. Then use Procomm to call my computer at 904-4015 and follow the easy-to-use menu prompts. Once on line you will be able to send a message to another user, ask questions of all users, view the sections of the aforementioned financial supporters, view the files from the national BBS, download shareware and other free software, and many more uses I plan to develop. Any ideas or suggestions that you have will be greatly appreciated.

I have been calling the national BBS for about a year now and the topics of conversation are always interesting as well as informative. Our president, Jerry Fable, is a frequent user of the national BBS, and I hope he will start to call this BBS as well.

If anyone is interested in purchasing space by becoming a sponsor or supporter please call Russell Fink at 904-4000.

#### ASSISTANTS NEEDED — APPLY BELOW:

Doug Long, Streamwood Oaks G.C.	(708) 287-3130
Greg Thalman, Fox Run Golf Links	(708) 228-3541
Don Ferreri, Seven Bridges	(708) 416-3434
Dick Trevarthan, Prestwick C.C.	(815) 469-5903
Steve Cummins at Lake Barrington Shore	es is looking for a
Mechanic. Please call (708) 382-3252.	



Home Office: Lewis Intl., Inc. II Payline South, Inc. Payline West, Inc. 5220 S. Route 31 1945 Bernice Rd. 55 E. Palatine Rd. 225 N. Randall Rd. Crystal Lake, IL 60014 Prospect Hts., IL 60070 St. Charles, IL 60174 Lansing, IL 60433 (815) 459-4555 (708) 537-6110 (708) 584-8700 (708) 474-7600

Tipper, New Larger Full Cab and Hydraulic

with fewer vehicles.

Liftpick/Tipper, you'll be able to do more work

Limits on outside income (if any)? Bonus (and amoount)?

as source material for future survey use.

In all, very nicely done, congratulations ...

• I would like to see other superintendent's schedules of fertilizer & fungus applications (yearly plans). This could be done anonymously.

• I think your questionnaire is something long overdue for the MAGCS. Your questions were to the point and very useful in gathering data. I was also glad to see so many questions devoted to education! The Midwest can go nowhere but up in the next years to come.

• Video Library, Spanish class and operational training classes are **SUPER** ideas. Hope MAGCS reviews Flower Show participation. My vote — forget it!

- Members who only attend golf meetings need to contribute a little more to non-golf meetings.
- · Students should have a student membership rate!

• With the availability of the GCSAA library, I feel a MAGCS library is not needed at this time.

• I enjoy hearing our fellow superintendents speak more than anything. It's fun to compare and learn from someone that does what I/You do.

• I appreciate an opportunity to participate in a survey of this sort. I think that the MAGCS is a super assocation that is quite beneficial to many maintenance operations. I need to be associated with private clubs with similar operations such as mine. My board of directors is participating in various CDGA functions and it is encouraging to me that they do so. Because we are so far away from the "action" we haven't hosted a monthly meeting, but between my brothers at the Arsenal Golf Club and the superintendents at Crow Valley and Davenport Country Club, both in Iowa, we hope that we can put together a combined association meeting. Perhaps after the riverboat gambling is started up on the Mississippi River and we have an added attraction for fun and fellowship. Keep up the good work! · I applaud the MAGCS on getting input from the membership. I've always felt that many of the decisions as to the direction and operation of the organization was decided by a very select group of individuals and hope the information will be used in a positive manner. I have been a member of the MAGCS for 8 years and am interested in seeing it continue to develop. The following are areas in which I have comments:

The educational sessions at meetings have been minimal during the golf season and I think that is fine. I pick up a fair amount of information from other superintendents, and after golf and dinner, a 30-45 min. speaker is the last thing I want to hear when I have a  $\frac{1}{2}$  hour drive home. Keep our educational sessions for the winter when time is not as much of a factor.

Meeting locations for golf have gone progressively downhill as far as the quality of golf courses in the past few years. If cost is a factor, perhaps we need to begin paying what is needed to cover the costs at a private club. Also, Mondays are not the only day that we need to have meetings on. Conversely, why don't the people that complain the most have a meeting at their club?



#### Turfgrass Drought Avoidance and Tolerance

#### by Dr. Jeff Nus, Kansas State University

Recent developments in understanding water use by turfgrasses have led to considerations of how to avoid the effects of drought or at least make grasses more tolerant of water shortages. Dr. Jeff Nus has conducted research to help shed more light on this topic. He suggests the following for your consideration.

• We must recognize difference between the terms drought and water stress. Drought is prolonged water stress. Some water stress is required for solute transport within turfgrasses. There are differences in water stress when it's light compared to when it's dark.

• Drought is affected by morphology of the turfgrasses. For example:

decreased growth; decreased tillering; thicker cuticle; deeper rooting;

increased root to shoot ratio.

• In solution culture, polyethyleneglycol will produce stress that can affect the turf.

• Turf roots grow deeper and increase in quantity as soil dries from the top down.

 Turf roots are restricted in growth from: too much nitrogen; compacted soil. overwatering; acid soil;

- Drought resistance is noted as follows: fine fescues tall fescues Kentucky bluegrasses perénnial ryegrasses
- · Under drought conditions, turfgrasses may escape or avoid

or tolerate detrimental effects.

bentgrasses

• Drought resistance may be defined in two ways. In an ecological sense, it means survival. In a production sense, it means growth.

• Water potential is a measure of the energy level of water. It determines the direction of water flow. Water potential exists in both plants and in soils.

 Water in soils may be classified within 3 ranges: saturated soil; field capacity soil;

permanent wilting soil.

• Water potential values vary from atmosphere to leaves to roots to soils.

• Ability of plants to maintain a high water potential is important. Special structures take up water and hang onto it. Xerophytic features include thick cuticles, extensive roots, efficient rooting, night time carbon fixing. Leaf structure varies in terms of numbers and location of stomates and guard cells. Osmotic adjustments keep these cells expanded.

• Drought avoidance involves the promotion of rooting. This is done by:

increase in height of cut;

aerification; extra potassium.

(cont'd. page 19)

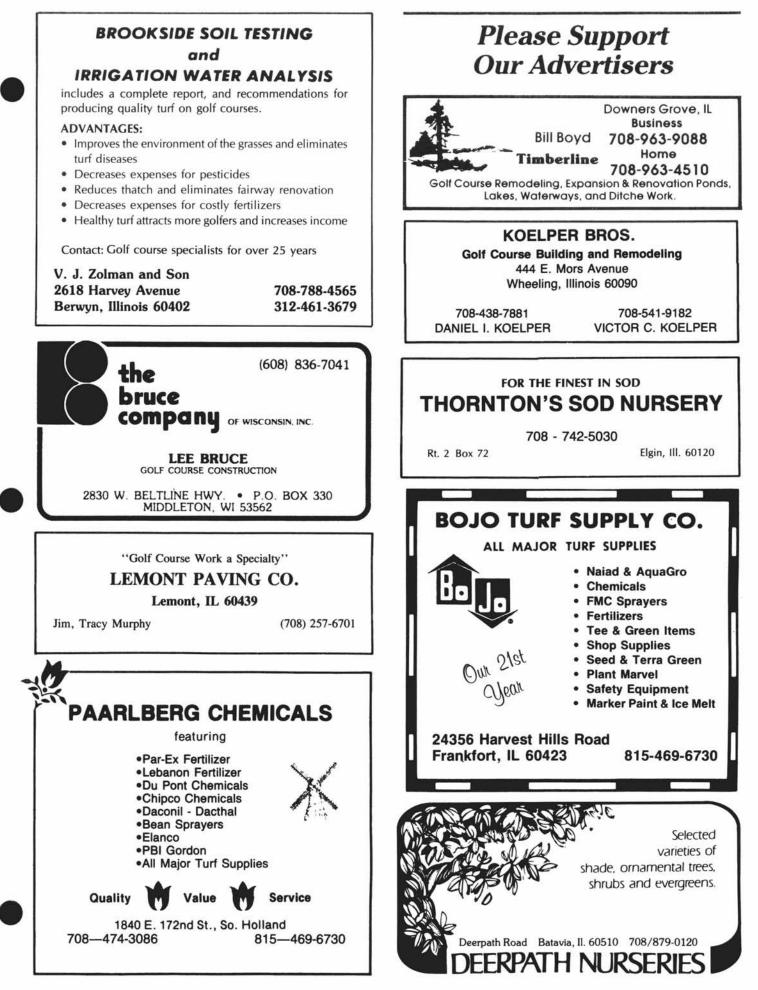


All of the quality you have come to expect from John Deene, and then some



Leadenship you can count on!

- Offset cutting units neduces tracking
- Adjustable steering wheel and power steering
- State of the ant single hydraulic pump powers all three cutting units
- Powened by 18 HP, liquid-cooled Kawasaki V-twin, 0HV 4 cycle engine
- Gneens Tenden Conditionen, lightly venticuts ahead of the neels



- 83			
Halloran & Yauch, Inc. 2040 Lehigh Ave., Glenview, IL 60025 CUSTOM PUMP HOUSE CONSTRUCTION & REMODELING! IRRIGATION INSTALLATION & REMODELING!		Top Guns for Turf Diseases.	
	GOLF COURSE DRAINAGE SYSTEMS!	turf fungicides provide unequalled control of major turf diseases. The synergistic effects of just one ounce each of Vorlan and Fungo in a tank mix pre- vents these six major turf diseases: Dollar spot,	
	Call Us For Your Golf Course Irrigation Needs!	Brown patch, Leaf spot, Anthracnose, Red thread, and Melting out. Contact your Sierra distributor today. SIERRA 1-800-346-0201	
	(708) 729-1625	© 1989 Sierra Crop Protection Co. Vorlan is used as a trademark and Fungo is a registered trademark of Sierra Crop Protection Co.	
	PRODUCTS, LTD.	<b>PERSONALIZED AND PROFESSIONAL Lawn and the care care services</b> For tree care, hydroseeding, prairie installation, lawn care or vegetation control, go with the professionals. McGinty Bros. Inc! We're small enough to provide that personalized service and large enough to offer all the professional systems knowledgeable customers insist upon.         Image: Construction of the professional systems knowledgeable customers insist upon.         Image: Construction of the professional systems knowledgeable customers insist upon.         Image: Construction of the professional systems knowledgeable customers insist upon.         Image: Construction of the professional systems knowledgeable customers insist upon.         Image: Construction of the professional systems knowledgeable customers insist upon.         Image: Construction of the professional systems knowledgeable customers insist upon.         Image: Construction of the professional systems knowledgeable customers insist upon.         Image: Construction of the professional systems knowledgeable customers insist upon.         Image: Construction of the professional systems knowledgeable customers insist upon.         Image: Construction of the professional systems knowledgeable customers insist upon.         Image: Construction of the professional systems knowledgeable customers insist upon.         Image: Construction of the professional systems knowledgeable customers insist upon.         Image: Construction of the professional systems knowledgeable customers insist upon.         Image: Construction of	
	THOUGHTS, ETD.		
	2 N 255 County Farm Rd. West Chicago, IL 60185 Phone: (708) 668-5537	PEERLESS FENCE CO. 3N381 Powis Rd. West Chicago, IL •Chain-Link Fencing •Wood Fencing •Special Gates •Golf Course Work Our Specialty 708/584-7710 Hal Laman	
	Distributors of:		
	Agri-Dianostic Disease Kits     Subdue     Acclaim     Banner	NATIONAL CHEMSEARCH CORP.	
	• Banol • Naiad	Russel Fishman (708) 432-3588	

#### (Drought Avoidance cont'd)

 Compensatory growth may involve more leaves or more roots or less leaves or less roots.

• Moderation of canopy temperatures is realized when there is more shading where the crown is located. There is a difference in temperature from canopy surface to soil surface.

• The canopy will help to reduce evaporation of moisture. This is referred to as canopy resistance. This may be realized as a short term effect or as a long term effect.

• Aerification of the soil has an effect on these processes as oxygen diffusion is enhanced so that oxygen gets down deeper in the soil. This promotes root growth that influences canopy development.

• Drought tolerance involves the ability of turfgrasses to withstand the availability of less water. This may range from dehydration to osmotic adjustment under low water potential. Osmotic adjustment results from the ability of turfgrasses to concentrate certain substances:

sugars;

amino acids;

inorganic ions - potassium.

• Full turgor and insipient plasmolysis measurements are useful in the evaluation of osmotic adjustments. A moisture release curve can be calculated.

• Cell wall characteristics are also important in determining drought tolerance. Kentucky bluegrass can osmotically adjust to drought. In this way it retains water. Turgor mediates the process —

growth;

stomatal conductance;

activity of enzyme systems.

· All this is necessary to maintain growth:

keep stomates open; maintain growth; maintain cooling.

• With stomates open, leaf temperature may be 85 degrees Fahrenheit. With stomates closed, leaf temperature may be over 100 degreees Fahrenheit. Stomates close rapidly when turfgrasses dry to a certain point.

• What effect will growth retardants have in these instances? Plant growth regulators may make root growth greater. Energy for leaf and seed production should go to the roots. However, when leaf growth is slowed down, will there be adequate translocation to roots? Timing is likely to be important, if roots are to be benefitted. Plant growth regulators are known to be dependent on time of application for favorable results.

• Limit, Cutless and Embark applied in June produced a reduction in turf quality and no reduction in over-all water use. Turf was actually less dense when treated than when not treated.

#### Learning

According to a recent study by Stanford University, people learn:

- 10% of what they hear,
- 30% of what they hear and see,
- and 70% of what they hear, see and write down.

According to that same study, regardles of source, we must use and put into practice that new insight 28 times before it becomes second nature to us.



### Leaves, Limbs, Needles and Boughs

by Fred D. Opperman

This month's selection will be the Bradford Pear. It is one of the finest street and lawn trees, and general all around purpose tree. Michael Dirr, author of "Manual of Woody Landscape Plants," where I am drawing my material from, states that he feels that the Bradford Pear is "now approaching epidemic proportions and will no doubt be over planted the way Green Ash, Silver Maple, and Siberian Elm are/were." I don't foresee the golf courses in over planting this species for it would be used differently than the fore mentioned trees are used.

Pyrus calleryana 'Bradford' (pi-rus kal-er-e-a-na) - Bradford Callery Pear

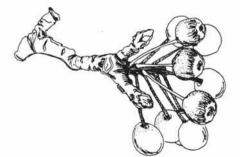
Leaves: Alternate, simple, broad-ovate to ovate, 1½ to 3" long, about as wide, rounded or broad-cuneate at base, usually quite glabrous, leathery lustrous dark green.



Buds: Large terminal and laterals of approximately same size, ovoid, elongated 1/2" long intensely woolly, dirty gray to gray brown.



Stem: Stout, brownish sometimes exhibiting ridges running from base of leaf scar, generally white woolly pubescent, especially below terminal gradually changing to smooth, glossy brown at maturity.



Size: Usually 30 to 50' in height and with a spread of 20 to 35'.

Flowers: A beautiful flowering tree in early to mid May in the Chicago area. Flowers are  $\frac{1}{3}$ " across and has been described as a "white cloud".

Culture: Easy to transplant if moved in late winter or early spring; do not move trees if in leaf, very adaptable to many different soils, tolerates dryness, pollution, and should be planted in full sun. Prune in winter or early spring. It is resistent to fireblight and basically free of pests. One drawback being that it tends to develop tight crotches and splitting may occur.

## **Special Sale**

Cutaway Daihatsu with a 150 Gallon Broyhill Sprayer with a Boom & Gun Total Price - \$6500.00 Contact Avery Harris at (708) 537-6110



## Automated Pumping Systems

Commercial Pump Service is your one-stop source for pumping system needs. Whether you need a new system designed and built, an existing system updated, equipment repaired, replaced or retrofit, Commercial Pump Service will do it.

Specializing in golf course systems, you can count on Commercial Pump Service to solve your irrigation problems quickly and expertly.



401 Broadway Swanton, Ohio 43558 419-825-1148 1-800-426-0370 Fax No. 419-825-3714