

# Balan™ nails every weedgrass on your most unwanted list.

More and more golf course superintendents are convinced. Balan keeps annual weedgrasses from muscling in on desirable turf. See for yourself. Start a Balan program of pre-emergence weedgrass control. It's like locking 'em up and throwing the key away.

**Greater stopping power.** Against Poa annua, crowfoot, crabgrass, and other major problem-grasses. Waterproof Balan forms a protective zone in depth—right in the seed-germinating area. Clings to soil particles through months of rain and irrigation. Nips those troublemakers in the bud.

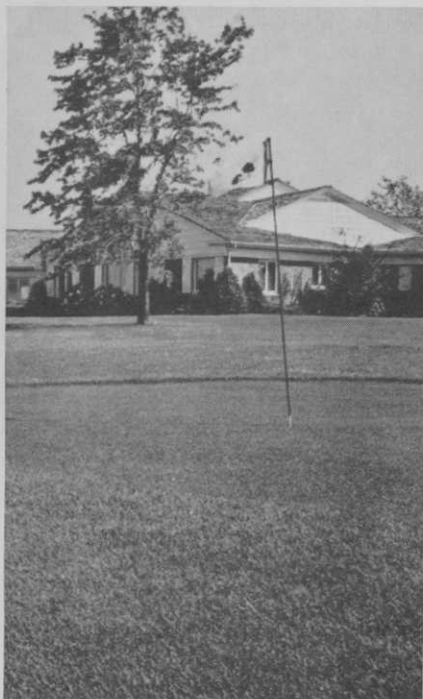
**Wider safety margin.** No worry of any poisonous arsenic, lead or mercury residue build-up problems when you use Balan. Use it confidently (and as directed) on established perennial bluegrasses, perennial ryegrass, fescue, centipede, St. Augustine, Bermuda, zoysia, and bahia grasses.

**Formulated for professionals.** Convenient granules mean no mixing. Handling, pouring, spreading all go smoothly. See your distributor now. Or contact us for the name of one nearest you. ELANCO PRODUCTS COMPANY • A division of Eli Lilly and Company, Dept. E-455 • Indianapolis, Ind. 46206, U.S.A.



(Balan (TM)—benefin, Elanco)

Goes all out . . .  
all over . . . all season.



## NOW Warren brings you Warren's® A-20 Bluegrass

The ideal grass for tees, approaches and collars. Takes short cut. Grows upright, gives better support to ball. Resistant to leaf spot, mildew, rust and stripe smut. Develops less thatch. Greens up earlier, stays green later.

Golf courses from coast to coast for years have planted Warren's Creeping Bent stolons for the finest greens in America. Clean, pure strain Warren's stolons provide perfect, even texture and color. Greens planted with seed do not hold their uniformity of color and texture as well as greens planted with stolons.

And Warren research has now made available the new grass, A-20, with the same high quality, for tees and aprons of greens. A-20 has been tested and rated excellent or superior by leading universities.

Write for specific information about A-20 Bluegrass and Warren's stolons.



**WARREN'S  
TURF NURSERIES**  
PALOS PARK, ILLINOIS

Phone (312) 974-3000

For more information circle number 232 on card



by Fred V. Grau

## ANSWERS TO TURF QUESTIONS

### Q's and A's

*Q.—At our club we would like to convert our teeing grounds to a mixture of bluegrasses, but we are afraid that we can't hold bluegrass at the short cut demanded by our golfers. We've had experience with bermudagrass, but the players don't care for the poor appearance in late fall, through the winter and, especially, in the spring before the bermuda turns green. Can you suggest some treatment(s) by which we could hold our bluegrass?*

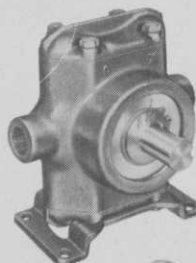
*(Virginia)*

*A.—Mow your bluegrass tees at about two inches, or slightly less, and give them the best bluegrass treatment you know. When you set the tee markers mow that strip (about three feet wide) down to one-half inch. This will give the golfers the short-cut firm teeing surface they want. Repeat the process when the tee markers are moved and allow the previous "set" to grow up to full height. By rotating the markers the bluegrass will not be seriously set back by the occasional short cut. The teeing area will be clearly delineated. Remove the clippings*

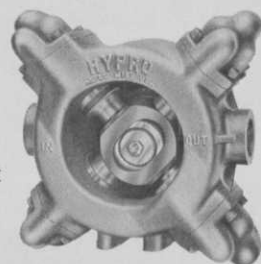
*continued on page 26*

## Hypro Pumps for applying weed and turf chemicals

### PISTON PUMPS



Series  
**C5210**  
**BIG TWIN**  
10 gpm (at 600 rpm)  
400 psi pressure  
also available with gas engine

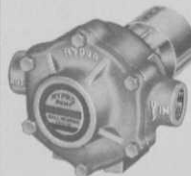
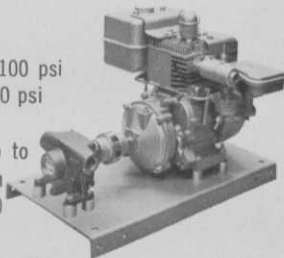


Series  
**5400**  
**4-CYLINDER PUMP**  
25 gpm output at 600 psi

### ROLLER PUMPS

Series  
**GN6310R**

6.9 gpm at 100 psi  
5 gpm at 200 psi  
3 hp engine  
(develops up to 250 psi with 4-hp engine)



Series **7560**  
**8-ROLLER PUMP**  
Output 12 gpm (at 540 rpm)  
Pressure to 300 psi.



Series **1500**  
**6-ROLLER PUMP**  
Output 30 gpm (at 540 rpm)  
Pressure to 150 psi.

Choice of rubber or nylon rollers

Write for complete pump catalog or request pump recommendation for your need.



## Hypro

A division of Lear Siegler, Inc.

343 Fifth Ave. N.W., New Brighton  
Saint Paul, Minnesota 55112

For more information circle number 176 on card



# TURFTOP... PLANNING AN AUTOMATIC IRRIGATION SYSTEM?? OR CONVERTING TO AUTOMATIC?

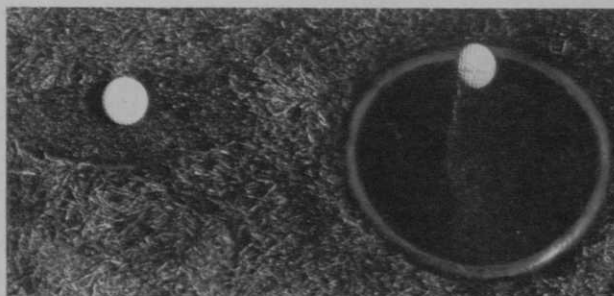
AT LAST  
A  
PLAYER'S DREAM

## THEN

Consider your players, your golf course, recreation area or park. Install Larchmont Turftop Sprinklers. All sprinklers perform and cost approximately the same, so why not install the best?

If you were playing in or planning a Tournament wouldn't you prefer to have the golf balls landing on turf rather than re-bouncing from a metal sprinkler cover. Larchmont Turftop Sprinklers eliminate this problem.

## COMPARE

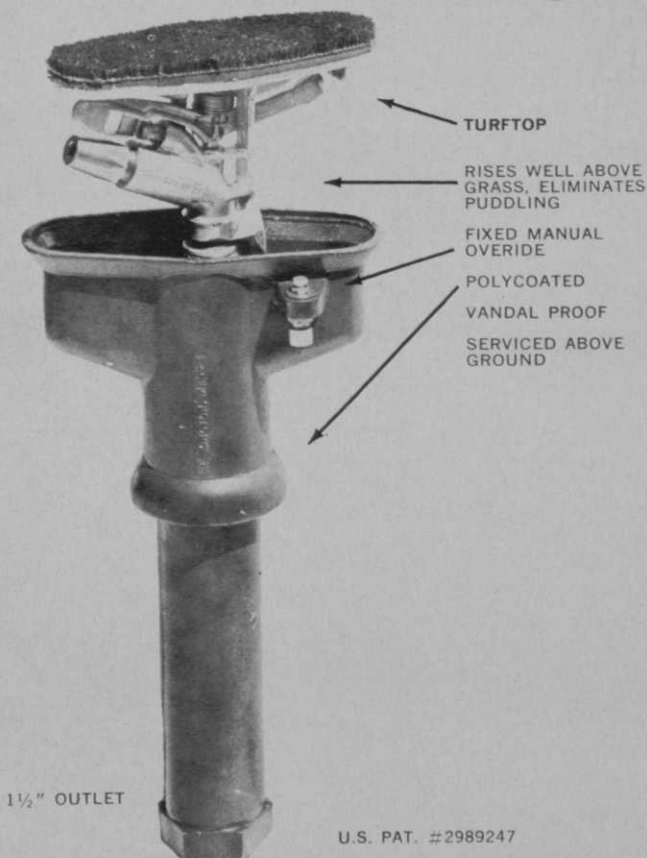


TURFTOP SPRINKLER  
NOTE SMALL SURFACE

TYPICAL  
SPRINKLER



IT IS A RELIEF TO CHIP AND NOT FEAR A HARDTOP



We also have available a complete stock of Controllers, Valves and Accessories, all designed to beautify the installation on your golf course.

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ENGINEERING  
& IRRIGATION INC.**

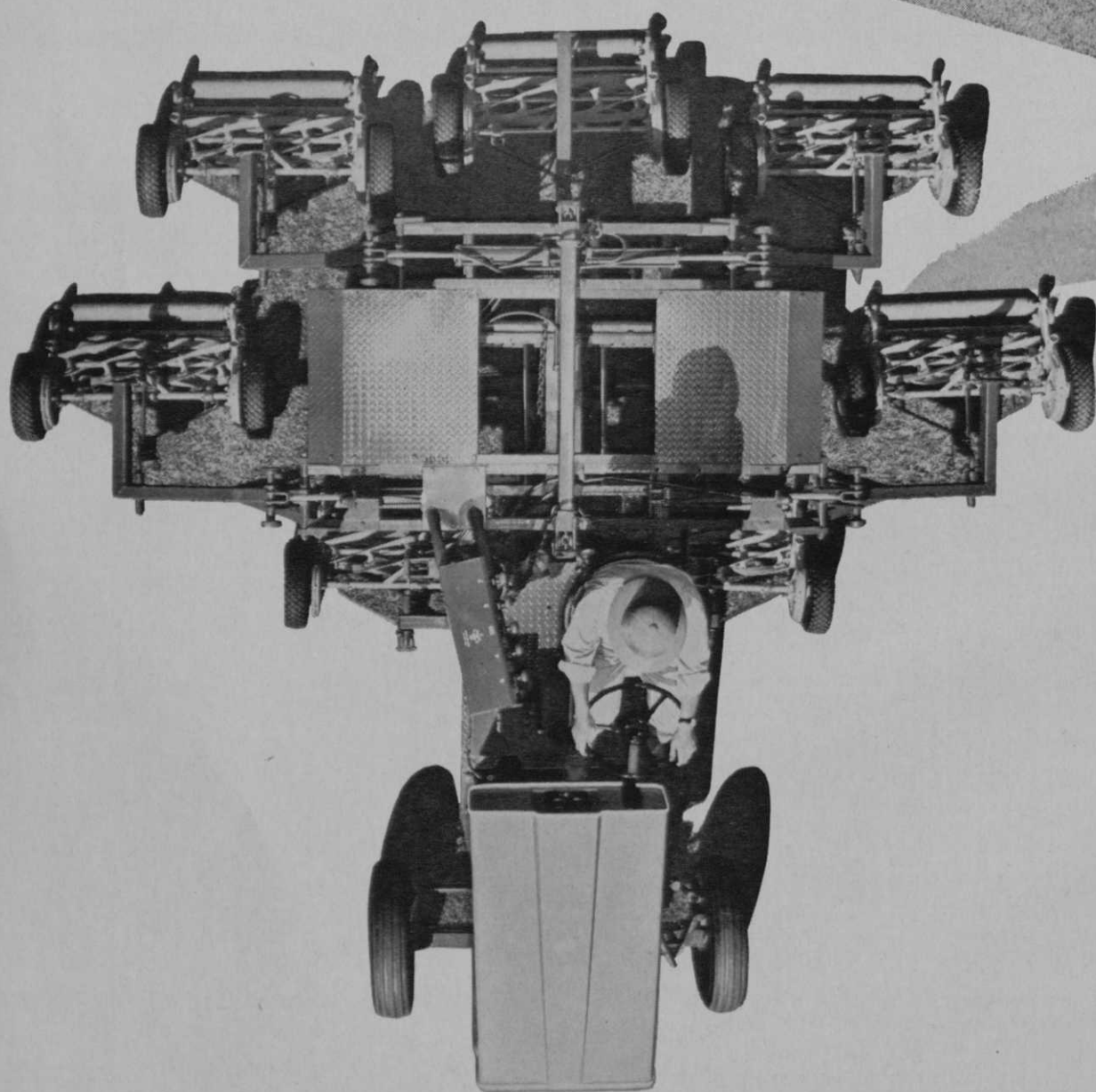
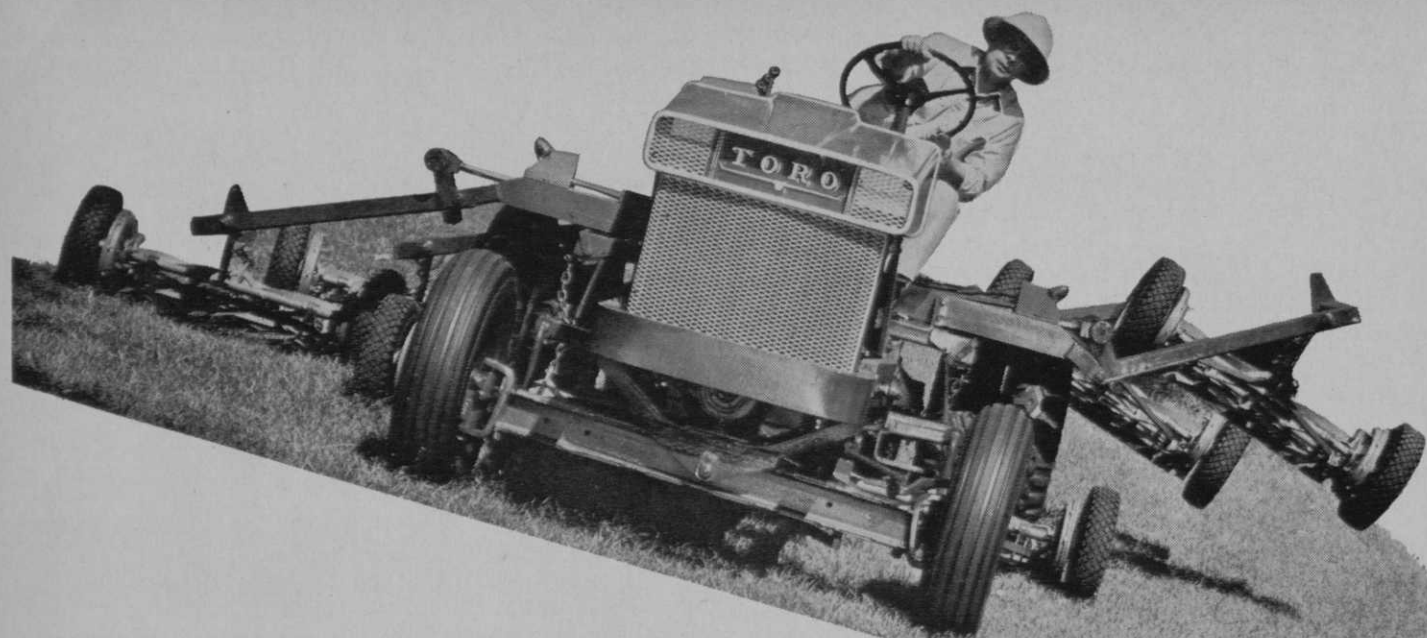


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**TRANSITE**  
Asbestos-Cement  
**IRRIGATION PIPE**





# Each gang does its own thing.

...AND 10 OTHER REASONS WHY A TORO PARKMASTER\* WILL OUTPERFORM ANY PUSH-TYPE MACHINE.



Each gang mower on a TORO Parkmaster is suspended from a free-turning pivoting frame. It's loose where it ought to be.

So it can rock back and forth and hug its own terrain. It can ignore completely what companion mowers are doing.

When it's pulled through turf, it won't skip or scuff. It won't miss or mark.

So, whether it's a 6 or 8-blade Spartan® or 4-blade Roughmaster® it cuts smoothly and evenly. All the time. For all of its long, troublefree life.

Such freedom of action is made possible, in part, by balanced weight distribution.

Which gives a TORO Parkmaster unit still more advantages over push-type mowers where weight is concentrated up front:

1. Less compaction: A Parkmaster will float along on the surface of the turf . . . won't dig in.

2. Faster, shorter turns: With a turning radius of just 7 feet, a Parkmaster unit responds instantly to a turn without disturbing mower operation.

3. Better traction: Parkmaster gets more traction per pound of weight. Wheel weights aren't even needed.

4. Faster, safer transport: With more positive control of a balanced Parkmaster, you can move along safely at 50 mph; less stable push-type units can't exceed 20 mph safely.

5. Mows steeper slopes: Parkmaster safely traverses 2:1 slopes.

Not bad for starters, right? Now consider these additional Parkmaster advantages:

6. Larger engine: Parkmaster has a 6-cylinder, 79 hp. engine providing peak lugging power for all-day, tough-duty usage. Our leading competitor offers a 4-cylinder, 55 hp unit.

7. No overheating: With Parkmaster behind the radiator, there's no way for grass to clog it and to cause overheating.

8. Complete flexibility: Parkmaster slims down to 30" wide to pass through the narrow spots, fans out to mow 15-foot swaths. You put any combination of one to seven mowers on the ground at a time.

9. Comfortable ride: Sports-car type bucket seat with all controls within easy reach . . . all units readily visible.

10. Hydraulic controls: Flick a lever and wings lift instantly to get you on your way.

And now, the clincher: you pay no more for a TORO Parkmaster!

Go see the world's smoothest cutting turf-care unit in action. Let your TORO distributor show you all the advantages we've been talking about.

\*Exclusive trade name of Toro Manufacturing Corporation

**LEASE A PARKMASTER.** Ask your TORO distributor for all the details. Or write: Toro Manufacturing Corporation  
8111 Lyndale Ave. South  
Minneapolis, Minn. 55420

# TORO®

**The real pros come to us.**

For more information circle number 171 on card



## GRAU

*continued from page 22*

where you mow closely, of course.

I am indebted to my good friend, Al Radko of the United States Golf Assn. Green Section, for this idea.

*Q.—Our new course will be located in hilly country on clay soil, with fairways cut through heavy oak woods. We are on the dividing line between warm- and cool-season regions. We would appreciate your help in selecting the grass(es) for our fairways. Appearances count heavily in this case. We will be ready to plant in fall 1970.*

*(Oklahoma)*

A.—My answer to your question has been heavily influenced by the excellent scarifier-seeders with which we can successfully introduce selected grass seeds into existing turf without interrupting

play. Therefore, in fall 1970 I suggest for the fairways a blend of turf-type perennial ryegrasses (Pelo, Manhattan, NK-100) with several vigorous low-growing bluegrasses (Merion, Fylking, Pennstar, South Dakota common). A suggested rate of seeding is 25 pounds per acre of the ryegrasses and 50 pounds of the bluegrasses. With good seedbed fertilization provided this should give excellent cover for appearances and a solid base of permanent cool-season grass. The next step, to protect against hot dry summers when water might be in short supply, is to scarify-seed hulled bermudagrass (common) into the turf in June 1971. Twenty to 25 pounds per acre should be a satisfactory rate.

By judicious re-seeding as needed, coupled with adequate, timely fertilization (principally to benefit the cool-season grasses) and minimum irrigation, you should have fairway turf of cham-

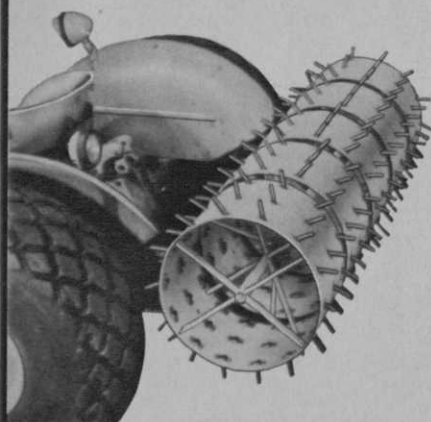
pionship quality. As newer, improved grasses are developed and as seed becomes available, the turf can be up-graded by scarifying-seeding.

*Q.—There has been talk of a new turfgrass book, but we have not seen it on the market. What can you tell us about it?*

*(Oklahoma)*

A.—The new book is "Turfgrass Science," a monograph, published by the American Society of Agronomy, edited by Hanson and Juska, United States Department of Agriculture. It is No. 14 in the Agronomy Series. There are 38 authors and 28 chapters. It is a complete reference book. The price is \$10 to members of A.S.A.; \$12.50 to non-members. Orders may be placed with the American Society of Agronomy, 677 S. Segoe Road, Madison, Wis. 53711. □

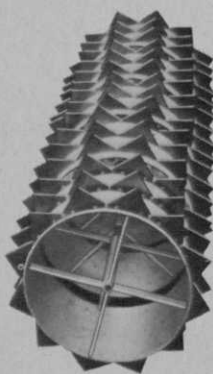
# Dedoes Turf Maintenance System



## AERATOR

Removes 180 plugs per revolution, passes them completely through plugger tubes, and distributes them evenly. Plugger tubes, made of tempered steel, makes clean holes up to three inches deep and will not tear up turf because they pivot.

**Guaranteed for One Year Against All Mechanical Defects**  
Entire system is exceptionally well-constructed for great reliability and durability.



## SLICER

Operates on the same principle as the aerator utilizing the tractor weight as a down force. Each of 180 slicing units cuts into turf with each revolution. Installed in mere minutes. Heat treated blades — fits quick-changing conversion unit.



## ROLLER

Roller, six feet wide, weighs less than 300 lbs. yet needs no water ballast to produce more than 2,000 lb. down force when attached to tractor. Operates same as aerator and slicer.

**See You at Booth B-15 at the 41st Turf Grass Convention in Houston, Texas, Feb. 8-13**

combining speed and efficiency with extraordinary versatility which allows instant interchange of turf aerator, slicer and roller.

## Add-on Cylinder Design

— Each aerator and slicer cylinder is made up of individual sections which are complete units in themselves.

## CONVERSION UNIT

This is the key to each piece of equipment.

Utilizes hydraulic system of any standard tractor to allow operation of aerating, slicing, and rolling attachments. Specially designed to shift more than 2,000 pounds of weight from rear tractor wheels to equipment in use. Permits equipment to be raised or lowered instantly for passing over driveways and easy transportation. Quick change — one unit required for all pieces of equipment.

another first from **DEDOES INDUSTRIES, INC.**

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For more information circle number 206 on card

Now you can drive away from turf care problems. Because National Chemsearch is ahead of the rest. Fifty years of experience, research and testing assure it.

Our new Gemini Grounds Care System is the answer. First, feed the turf with TRIPLE "N," the liquid high-nitrogen fertilizer that promises fast top growth and greening. One gallon covers 10,000 square feet, and application is easy with the new 4-cycle Gemini sprayer.

Then, use VINA-CHLOR, the long-lasting concentrated insecticide

for sure kills . . . even on DDT-resistant bugs.

For a weed-free season, apply DK-80, the non-selective weed killer. Just spray it on with the Gemini. Deepenol 60, an additive in DK-80, soaks it down to root level.

If you want selective weeding, try APOLLO #45, and watch broad-leaf weeds, wild onions and wild garlic disappear while grass stays vigorous and green.



Want to know more? Just consult your National Chemsearch Representative. He's the unpaid consultant on your staff.



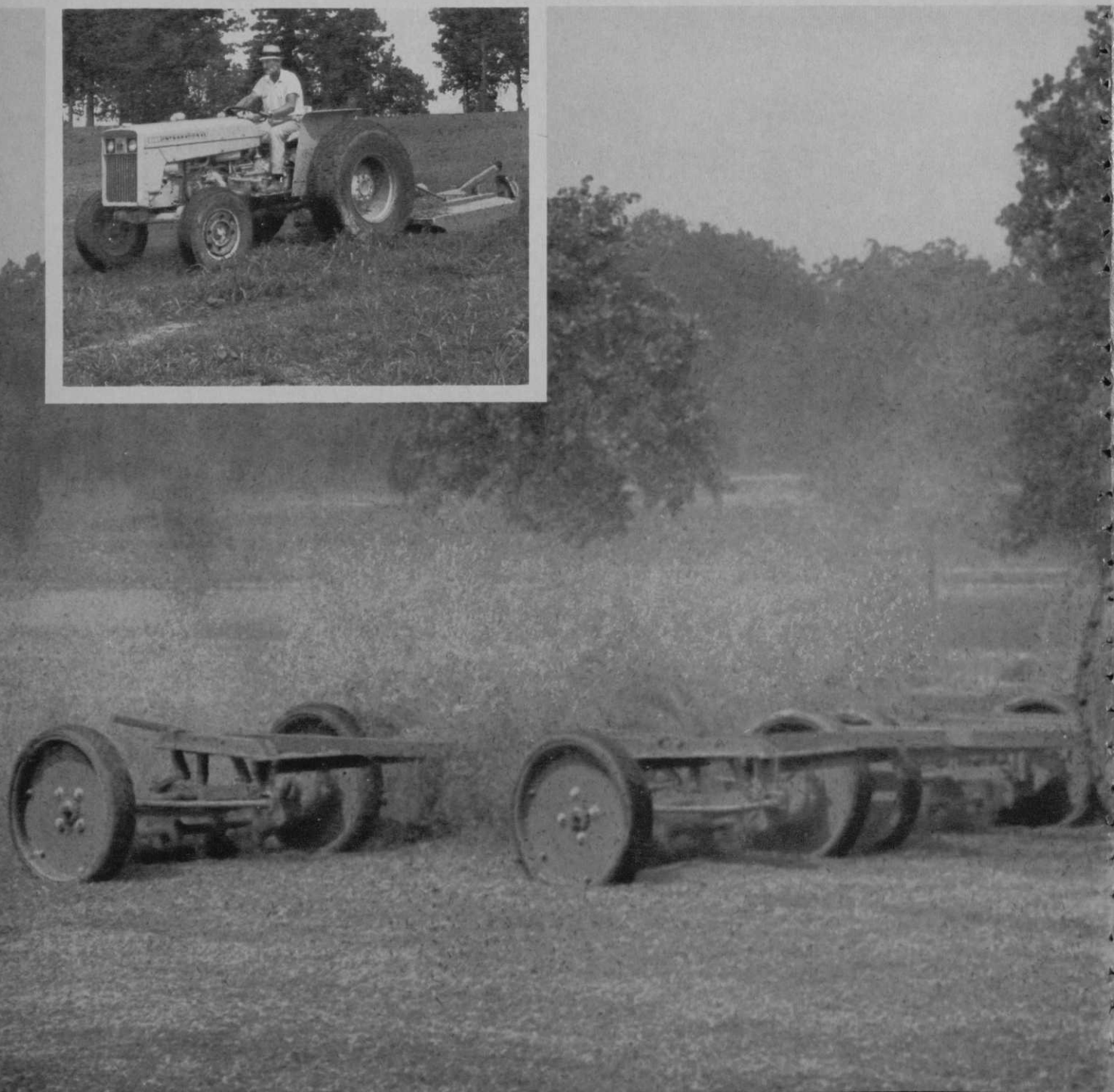
Solving Your Problems Through Research Since 1919.  
Dallas • St. Louis • New York • Los Angeles • Toronto

## Use Gemini Grounds Care System and drive away from lawn maintenance problems.



For more information circle number 163 on card

**“International 2444’s  
power, maneuverability  
and ruggedness makes  
it tops at Tupelo C.C.”**





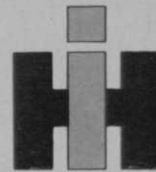
President Ray Harris and members of the Tupelo Country Club are proud of their new 7,150-yard golf course that opened November, 1969.

Playing a leading role in preparing the course for the grand opening was the club's International 2444 tractor equipped with three-point hitch and drawbar for the six-foot rotary mower, the seven-gang fairway mower and the sweeper.

Jim Gentry, course superintendent at Tupelo C.C., reports: "Our 2444 is ideal for course maintenance—small and maneuverable yet powerful enough to handle towed equipment fast on our rugged terrain. It gives us superior fairway maintenance at low operating cost. In my eight years in course maintenance, I've found Internationals are top performers

for dependability. They are always backed by an available parts supply when service is required."

Next time you need dependable maintenance machines, call in your International dealer. He has the parts and service facilities that help make his line the leader for availability. And he offers any finance plan you choose—rental, lease or lease with a purchase option.



## INDUSTRIAL EQUIPMENT

Wheel and crawler tractors • loaders • backhoes  
dozers • forklifts • mowers • special duty tools

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International Harvester Company, Chicago 60611.  
For more information circle number 162 on card



## Put LIQUID LUSTRE<sup>®</sup> Golf Ball Wash in Your Ball Washers



COSTS AS  
LITTLE AS 2¢  
PER WASHER  
PER WEEK

- Keeps golf balls sparkling white
- Pays off in player satisfaction
- Helps stop rust in washers
- No unpleasant odor—ever!

### Reduce costs with other DBA maintenance aids ...

#### DBA GENERAL PURPOSE MACHINE CLEANER

Speed shop maintenance work by quick, easy removal of oil, dirt and grease from metal parts. Easy to use—available in 1 or 5 gal.



#### DBA SEALSTONE<sup>®</sup>

A real work saver—dries to hard semi-gloss finish to give long-lasting beauty to stone, slate and similar type flooring. Easy to apply—available in 1 or 5 gal.

Order from your Dealer or write direct



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For more information circle number 178 on card

## DIVOT-FIXERS

Golfers insist on good greens! Furnish them with a **DIVOT FIXER** and they will do their part helping you maintain these beautiful greens.

**DIVOT FIXERS** are now available in both aluminum and highly polished nickel steel, with standard imprinting "FIX BALL MARKS ON GREENS THANKS—YOUR GREENS COMMITTEE." Samples furnished upon request.

Prices effective Jan. 1, 1968 (plus shipping charges):

Nickel steel (FOB Des Moines)	Aluminum (FOB Des Moines)
100 — \$20.00	100 — \$12.50
250 — 35.00	250 — 25.00
500 — 52.50	500 — 40.00
1000 — 95.00	1000 — 75.00

**SORRY—NO IMPRINTS**

**Woodside Golf & Park  
Supply Co.**

Des Moines, Iowa 50313

For more information circle number 207 on card



by Ken Emerson

## ACCENT ON MANAGEMENT

### NCA's annual conference

In a departure from the activities of previous years, the National Club Assn.'s 1970 annual meeting will span a two-day period, convening on February 2d and 3d at the Mark Hopkins Hotel in San Francisco, with an additional program being presented in conjunction with the Club Managers Assn. of America on Wednesday, February 4th.

Getting an early start on activities, NCA's board of directors will meet Monday morning prior to the full membership meeting.

Following the annual meeting, the new board of directors will meet to elect officers for 1970.

Monday evening a special cocktail party will honor retiring directors, the association's new officers and Congressman and Mrs. John Dent.

Tuesday's program, which is open to both NCA members and to non-members, begins with a morning long panel discussion on union and labor techniques and the Fair Labor Standards Act. Featured on this portion of the program will be Harry J. Keaton of the law firm of Rutan and Tucker.

At noon a special luncheon will feature Congressman John Dent

of Pennsylvania. Congressman Dent is chairman of the General Subcommittee on Labor and has long been the majority party's floor leader in labor legislation affecting wages and work standards. He will take this opportunity to review some of the principal features of the new Minimum Wage Bill of 1970. Pre-registered NCA members will automatically be entitled to attend the luncheon. Others who are interested may obtain tickets at the Mark Hopkins on Monday and Tuesday morning.

On Tuesday afternoon NCA will air the vital issues of Civil Rights as they concern private clubs. Preliminary to conference, each registrant will receive the legal background of the issues involved at conference. The association will give those parties who disagree with our industry an opportunity to present their points of view, after which the club position will be stated. When the issues have been presented, the audience will be able to ask questions of all participants through the moderator.

The tax clinic, through the cooperation of CMAA will be presented as a part of CMAA's Wednesday afternoon program on February 4th. The purpose of this scheduling is to make it possible for the maximum number of club managers to attend.

Appearing again for the NCA will be Jack Janetatos, partner of the firm of Baker and McKenzie, who serves as counsel for both associations. Mr. Janetatos will fully review the Tax Reform Act of 1969 and its affect on private clubs. In addition, he will discuss the latest information on state and county excise and property taxes and what the industry may expect in the way of future tax problems.

During the remainder of the CMAA conference NCA will maintain a hospitality suite at the Mark Hopkins to enable interested club managers and officers to discuss their problems. □