

# EXCEL HUSTLER 261

New, big machine performance in a compact size, low price.

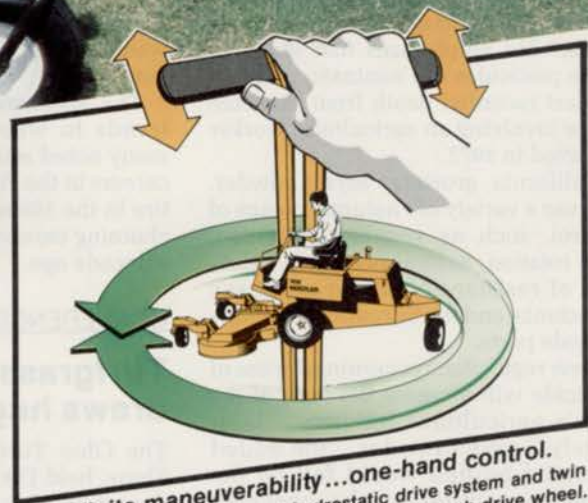


EXCEL'S economical new HUSTLER 261 with 60" deck offers unparalleled performance in a compact size with a surprisingly small price tag. Superior engineering also gives the 261 features that keep productivity up and operating costs down.

The infinite maneuverability, plus added performance features like the 60" 3-way deck with floating action and short wheelbase, lets you cut trimming time around any obstacle so operating costs can be reduced significantly. The 261 is the ideal grounds maintenance machine for parks, apartment complexes, condominiums, cemeteries, or anywhere where tight maneuvering is needed.

Designed for year 'round use, the HUSTLER 261 attachments include a 60" 3-way deck, 60" dozer blade, V-blade, utility scoop, edger, rotary broom, tilt-deck trailer, and more...giving the 261 four-season productivity.

Call toll free 1-800-835-3260, or write for the name of your EXCEL distributor and free literature. He'll be glad to set up an EXCEL HUSTLER field demonstration for you.



## Infinite maneuverability...one-hand control.

The HUSTLER'S exclusive dual-hydrostatic drive system and twin lever steering provides independent control of each drive wheel. This counter-rotating capability of the drive wheels permits infinite maneuverability within its own radius to maneuver around any obstacle or contour. Gives one-hand control of speed, forward, reverse, turning and braking. Eliminates steering wheels, linkage, foot pedals, brakes, chains, sprockets and their maintenance. The dual-hydrostatic system operates at lower psi for longer life.

**The choice of the Pros.**



GM-4W-281

EXCEL INDUSTRIES, INC. • BOX 727 • HESSTON, KANSAS 67062 • (316) 327-4911 • (800) 835-3260

75 percent green-goods display. The association has agreed to pay the present 25 stockholders \$60,000 plus a booth credit in the show for the next four years.

FNGA's executive vice president, Charles W. Dunn, said that the exposition will offer the association's foliage division a vehicle to promote its Florida product further. "The production of some of the world's finest foliage is based in Florida," he said. "These growers need to expand markets and seize every opportunity to develop new ones."

#### RESEARCH

### Study on California's use of pesticides

California, the nation's leading agricultural state, is also its leading user of pesticides, reports Security Pacific National Bank in a study, "California Agriculture." The study shows that in 1979 the state used an estimated 139 million pounds of pesticides, which included more than 118 million pounds used for agricultural purposes.

Vernon M. Crowder, assistant vice president of the bank's research department, says, "California has regulated pesticide usage for more than 40 years." He emphasizes that many of these pesticides are nontoxic, and that the last recorded death from pesticide usage involving an agricultural worker occurred in 1972.

California growers, says Crowder, also use a variety of "natural" means of control, such as weather, irrigation, crop rotation, natural predators, selection of resistant plant varieties, sex attractants, and the introduction of sterile male pests.

New regulations governing the use of pesticide will increase the costs of the state's agricultural industry. "Ultimately," says Crowder, "the added financial burden would fall on the consumer—either at the checkout stand in the market or on the tax bill." He reports that California growers also are concerned that freedom to use pesticides when needed is essential to the production of reasonably priced, high quality food products.

#### CONFERENCE

### Annual weed control conference held

The North Central Weed Control Conference elected new officers recently at its 35th annual gathering in

Omaha, Nebraska. James D. DiVall of Stauffer Chemical Co. was elected second vice president; James W. Herron, University of Kentucky, agronomy department, was named president; and Robert L. Benson, Monsanto Co., became first vice president.

The conference's two keynote speakers lauded the accomplishments of weed scientists during the past decade, but said they need to be more active in public affairs in order to meet the challenges of the '80s.

Will D. Carpenter, president of the Weed Science Society of America, urged his audience "to work toward responsible regulations—not no regulations. If you choose not to become involved, you can be assured that others will," he warned. He said that although research and development professionals have little control over inflation, the declining food supply, the decreasing availability of resources, and the political environment, they need to be active in public issues which affect agriculture.

G.F. Warren, professor emeritus of Ohio State University, reviewed developments in herbicides and biological weed control during the '70s. Reduced tillage to conserve moisture and reduce soil erosion has grown popular, he said. But finding ways to control resistant weed species continues to be a problem.

The speakers mentioned two new trends in weed science personnel: many noted scientists who began their careers in the World War II era will retire in the 1980s, and more women are choosing careers in weed science than a decade ago.

#### CONFERENCE

### Turfgrass meeting draws huge crowd

The Ohio Turfgrass Conference and Show, held December 2-4 at the Ohio Center in Columbus, drew a record number of 1,745 people from 34 states.

Some 85 show exhibitors, representing fertilizer, seed, and equipment companies, chemical firms, irrigation specialists, and even a computer company, filled all 180 booth spaces.

The keynote speaker at the opening session, Dr. Roger Blackwell, professor of marketing at Ohio State University, spoke on "Changing Consumer Lifestyles: Implications for the Turfgrass Industry." The educational program was split into concurrent sessions on golf courses and on professional lawn

*Continues on page 86*

### Embark® Plant Growth Regulator Distributor Locations

#### California

Moyer Chemical Co.  
San Jose  
Santa Ana

Target Chemical Co.  
Cerritos

San Jose  
Van Waters and  
Rogers

San Jose  
Los Angeles  
San Diego

Wilbur-Ellis Co.  
Chula Vista  
Santa Fe Springs  
Fresno  
Woodland

#### Colorado

Balcom Chemical Inc.  
Greenley

#### Florida

Souther Agricultural  
Insecticides, Inc.  
Palmetto

#### Georgia

Regal-Chemical Co.  
Alpharetta

#### Illinois

Chicago Toro  
Drake-Scruggs  
Equip. Inc.

Decatur  
Turf Products, Ltd.  
West Chicago

#### Indiana

The Daltons Inc.  
Warsaw

#### Iowa

Big Bear Equipment  
Des Moines  
Davenport

#### Kansas

Champion Turf  
Equipment  
Wichita

#### Kentucky

George W. Hill & Co.  
Florence Ky.

#### Maryland

Commercial Lawn  
Services Inc.  
Rockville

Cornell Chemical &  
Equip.  
Linthicum Heights

#### Massachusetts

Richey and Clapper  
Co.  
Natick

#### Michigan

Lawn Equipment  
Corp.  
Novi

W. F. Miller Co.  
Birmingham

#### Minnesota

Minnesota Toro  
Minneapolis  
Turf Supply Co.  
St. Paul

#### Missouri

Beckmanns Turf  
Chesterfield  
Champion Turf  
Kansas City

#### Nebraska

Big Bear Equipment  
Omaha

#### New Jersey

Andrew Wilson Inc.  
Mountainside

#### New York

Agway Inc.  
Syracuse  
Green Spaces

Yonkers  
J & L Adikes  
Jamaica

#### North Carolina

So. Agricultural  
Insecticides Inc.  
Hendersonville  
Boone

#### Ohio

Chemi-Trol Chemical  
Co.

Gibsonburg  
Lakeshore Equipment  
& Supply  
Elyria

#### Oregon

Van Waters & Rogers  
Portland  
Wilbur Ellis  
Portland

#### Pennsylvania

Farm and Golf  
Course Supply  
Philadelphia  
Lawn and Golf Supply  
Phoenixville  
Miller Chemical  
Hanover

#### Rhode Island

Old Fox Chemical  
East Providence

#### Texas

Chemical & Turf  
Specialty  
Dallas

#### Virginia

Wilson Feed and Seed  
Richmond

#### Washington

Van Waters and  
Rogers

Kent  
Seattle  
Wilbur-Ellis Co.  
Seattle  
Spokane

#### Wisconsin

Reinders Bros. Inc.  
Elm Grove

# AT HOLY CROSS, FULL-TIME TRIMMING IS BECOMING A PART-TIME JOB.

Larry Farrell  
Superintendent  
Holy Cross Cemetery  
Milwaukee, WI

Maybe you can't see the difference. But since Holy Cross Cemetery added EMBARK plant growth regulator to its seasonal work force, they're doing 50 percent less trimming.

What started as a test is now a full fledged turf maintenance tool for Larry Farrell, superintendent of this 160-acre cemetery.

"By spraying EMBARK PGR on fast-growing grass around raised monuments, crews only trim 4 or 5 times a season," says Larry. "That's down from the usual 8 or 10 trips."

For Holy Cross a 50 percent drop in trimming means better use of part-time labor. Because if crews aren't cutting around markers, they're busy mowing or doing other cemetery maintenance jobs.

With EMBARK PGR, you spray whenever grass is actively growing. Spring, summer or fall.

Ask your local distributor for EMBARK plant growth regulator. Make full-time trimming a part-time job.

Agricultural Products/3M  
223-6SE 3M Center  
St. Paul, MN 55144

**3M HEARS YOU**



**Embark®**  
Plant Growth Regulator

EMBARK is a registered  
trademark of 3M.

**3M**



## TWO GREAT GAMES ONE GREAT GRASS

Super Bowl XIV and the Rose Bowl classic were the great games. The turf? That was Derby Turf-type perennial ryegrass.

Derby was selected by George Toma, the man responsible for the Super Bowl XIV turf and Gus Huntly, turf manager for the Rose Bowl game, because of the special requirements for these special games.

Toma and Huntly wanted a fast-germinating, dark-green, handsome grass as well as one tough enough to take a pounding and still look great for the television cameras.

And Derby did it all. Of course, it will do more. It mows beautifully and thrives when cut at 1½ inches or at 3/16 inch on golf greens. In Southern areas it's a top choice for winter overseeding of golf greens.

Derby is also a great mixer, combining with the fine fescues and bluegrasses to form an outstanding turf.

### HERE'S WHAT DERBY WILL DO

- *Persists in heavy, compacted, poorly drained areas where traffic is not intense*
- *Tolerates a wide range of soil types from heavy clay to sandy*
- *Retains its deep green color during chilly Southern winters*
- *Germinates in less than a week under ideal conditions*
- *Thrives when cut to 3/16, 1 inch or 1½ inches*
- *Mixes nicely with fine fescues and bluegrass*

A Product of:



**INTERNATIONAL SEEDS, INC.**

P.O. Box 168, Halsey, Oregon 97348  
Telephone (503) 369-2251 • TWX 510/590-0765

Write 132 on reader service card

### 2,4-D from page 52

peated. Reproductive studies were done intensively and an EPA advisory report said that it could show no effective levels that are higher than human exposure. These are justifiable things. It's impossible to prove a negative, that 2,4-D is not harmful. Studies can't always define every situation. You have to study the benefits of continued use to see if they outweigh any contradictory evidence. I'd rather see any contradictory evidence. I'd rather see if they outweigh any contradictory evidence. I'd rather see the old experience that is proven more than something newer, not as well tested. The city parks department has been using 2,4-D for 25 years without complaint.

**WTT:** Do you think medical evidence may show that the child (Zachary) was affected by the spraying of 2,4-D?

**RGH:** There's no reason to believe this. It is generally accepted that the applicator is the most likely person to be the most exposed. No correlation has been observed previously of this type of symptom. Nothing in scientific literature lends credibility to the father's claim. The doctor claimed the child had a history of these types of seizures. A neurologist testified at the hearings that there was no correlation between the child's history and 2,4-D. It occurred in an uncontrolled situation; there is no way to control the circumstances. The family hasn't given medical evidence to confirm or deny the accusations. All you have to go by is the parent's opinion that this seizure had to do with the use across the street at the park.

**WTT:** What do you think will happen to this issue in the future?

**RGH:** I have no idea. In this city because of liberal politics, the tendency for an emotional reaction that's traditionally taken place — anything is possible. The health director wanted stoppage of the use of all herbicides. This wasn't based on any data, but on his own emotional concerns. He didn't talk to anyone about herbicide chemistry.

Nationwide, many people and organizations are trying to stop the use of any type of pesticides. They wish to go back to organic farming, and are anti-technology. Many are very well meaning. It is their privilege to have these beliefs. Based on these feelings, their basic philosophy is to raise the 2,4-D question in every town hall, county commission, and school hall — to get the word "herbicide" in the press as much as possible to raise the excitement of the public.

I believe logic will prevail; decisions will be made on scientific review and analysis. I sure hope this is the case. Otherwise, the future of the country is in trouble. There's no guarantee that there won't be some discovery of a hazard with 2,4-D or anything. Who knows what will come along? I hope whatever happens is based on scientific review, not on emotional, unscientific data.

**WTT**



Here's a smart reason  
to support NMC in 1981:  
1982.

# Toro creates the ultimate low pressure, large radius Pop-Up.

"Matched Precipitation" nozzles at 1.3, 2.5 or 5.0 gpm.

The nozzle pops up a full 2" to get above tall grasses.

Adjustable arc: 45°-315° and full circle.

2"

Strong, stainless steel spring for positive, dependable retraction.

Riser seal helps keep out sand and debris.

Gear-driven rotary with adjustable radius up to 50'.

Utilizes proven Toro gear drive for reliability. And it's permanently sealed and lubricated to help assure smooth performance.

Our new Toro Super 600 certainly lives up to its name: it's versatile, reliable and economical. And it's specially designed to pass sand and silt right through it.

The Super 600 is also so remarkably compact, it's a breeze to install.

## The New Toro Super 600

\$19<sup>95</sup>\*

\*Manufacturer's suggested list price subject to local dealer option.

We've re-invented irrigation, from the ground up.

Works at pressures as low as 25 psi.



Irrigation Division

Write 170 on reader service card

Actual Size

service and grounds maintenance. Among the speakers were Dr. Roy Goss of Washington State University, who talked about "Fertility Programs and Other Methods of Annual Bluegrass Management," and Dr. Win Hock of Pennsylvania State University, who discussed "Pesticide Spills." On the last morning, there was a third session—a disease and insect identification workshop.

At a business meeting, Mark Yoder was elected president and Dick Warner became president-elect. Tom Baker was elected vice president, and Gary Rasor is the new treasurer.

The Banquet Guest Speaker was Wayne Woodrow "Woody" Hayes, who served for 28 years as head football coach at Ohio State University. Hayes reviewed the history of Ohio State football, which he related to political history, concluding "That's the way the ball bounces."

The "Man of the Year" Award for Professional Excellence was presented to Wilbur Waters. He recently retired as superintendent of Inverness Golf Club in Sylvania, Ohio, and had been

associated with the golf course business for 54 years.

#### CONFERENCE

### Maryland turf group meets in Baltimore

Some 600 people attended the Maryland Turfgrass Council's Educational Conference & Trade Show at the new Baltimore Convention Center in Baltimore, Maryland, on January 5-7.

Several out-of-state speakers delivered talks, including Dr. Harry Niemczyk of the Ohio Agricultural Research and Development Center, whose subject was the absorption of insecticides by thatch. He told how to control chinch bugs and billbugs with one application of insecticides during the spring.

Two speakers discussed the severe drought and practical ways to conserve water. Dr. Jack Butler of Colorado State University talked about managing water with limited quantity and quality. Dr. Al Dudeck of the University of Florida spoke on water management

problems and related research in Florida.

Dr. Tom Watschke of Pennsylvania State University covered the subject of growth regulators for turfgrass, including their current use and the potential for in-depth research at the university.

Mr. J. M. Jalone of J. M. Malone & Sons talked about aquatic vegetation and control with a hybrid white amur. This fish, a type of carp developed by breeding, controls weeds and cannot reproduce. Thus, it does not stifle native species, and efforts are being made to legalize its use.

#### PARKS

### Park Service halts use of 2,4-D

The National Park Service is suspending the use of the herbicide 2,4-D in its 325 parks and recreation areas.

A park spokesman said that the action stems from pressure from environmental groups, which claim adverse reaction to the weed killer. Dow Chemical, a major manufacturer of 2,4-D, says that in 30 years of marketing there has been "absolutely no problem associated with the chemical." EPA in its study of the chemical has said the evidence of adverse health effects is inconclusive and they have no plans to ban it.

#### LEGISLATION

### Congress extends mower deadline

Congress has granted mower manufacturers a six-month extension to comply with the Consumer Product Safety Commission safety standard for walk-behinds. The action delays the effective date to June 30, 1982.

The extension is part of the CPSC appropriations measure, which is part of a larger bill including the Department of Housing & Urban Development. It was proposed by Rep. Lawrence Coughlin (R-Pa.), ranking minority member of the House appropriations subcommittee, and strongly supported by Sen. William Proxmire (D-Wisc.), chairman of the Senate subcommittee.

#### PUBLICATION

### Free copies available of restoration news

Free copies of the first issue of Restora-

*Continues on page 90*

**Does the condition of your turf make you see red?**

**Switching to Pennfine Perennial Ryegrass could color your outlook. It's long been the standard of quality against which other varieties are compared. Why not simplify your life? Go with the most widely used fine-leaved perennial ryegrass in the nation. By the way, if you have trouble finding Pennfine, just ask the turf pro with the best-looking turf around. Chances are he's already using it. Pennfine Perennial Ryegrass, P.O. Box 923, Minneapolis, MN 55440**

Write 151 on reader service card

# THE GRASS IS GREENER ON THE ENKAMAT® SIDE.



Enkamat® webbing is a 3-dimensional nylon turf reinforcer. Placed just below the surface, it will keep turfgrass and/or appropriate vegetation in place, protect it against tearing, and in most cases prolong the playing season.

The Rose Bowl installed 20,000 square feet in March 1980, and reported excellent results, even after an extensive soccer season. The Wellington Landing Strip and numerous high schools also installed Enkamat webbing with great success.

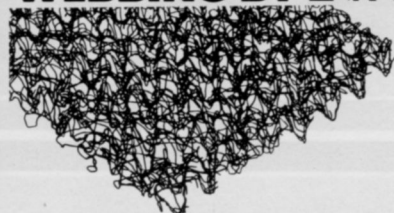
Enkamat helps scarred turfgrass heal itself by protecting against compaction and divoting, promoting a strong root system. Because Enkamat provides a more resilient footing than both unprotected grass and topical synthetic matting, it tends to reduce the types of injuries suffered on artificial turf.

Enkamat works. In the stadiums of the Orange Bowl and New Mexico State. On the tees and greens and cartpaths of this country's more prestigious golf courses. On athletic fields, polo grounds, parks and soccer fields.

You'll call it the greening of America. But the real name is Enkamat.

For more information, call Tom Mascaro (305) 893-6449 at Turfibre Products, P.O. Box 610366, North Miami, Florida 33161.

**ENKAMAT®**  
**WEBBING BY ENKA**



*Keeping America green.*

The Rose Bowl

ENKAMAT IS A REG. TM OF AMERICAN ENKA CO., ENKA, INC. A PART OF AZCOPIG INC. AND IS THE SUBJECT OF A NUMBER OF U.S. PATENTS

Write 101 on reader service card

**ACCUTROL<sup>®</sup>**  
Surfactant.

**VEGATROL<sup>®</sup>**  
**DPD-AMINE**

**VEGATROL<sup>®</sup>**  
**DPD-ESTER**

**BANVEL<sup>®</sup> XG**

A 10% dry formulation for spot treatments.

**BANVEL<sup>®</sup> 520**

Oil soluble combination of Banvel and 2,4-D  
for dormant, basal and low-oil applications.

**BANVEL<sup>®</sup> 720**

Water soluble formulation of Banvel and 2,4-D.  
Aquatics clearance in some states.

**BANVEL<sup>®</sup> 4-W.S.**

A 4-lb. dicamba formulation.



# Banvel Industrial Herbicides...

## Just what the Industrial Vegetation Control Specialists ordered.

Economy. Efficacy. Environmentally sound. That's what these industrial vegetation control specialists said they wanted in brush and broadleaf weed control herbicides. So we offered them a complete line of Banvel industrial products. Here's what they had to say...



**Robert J. Gates, chief of field operations, Southwest Florida Water Management District.**

Robert Gates and the Water Management District have been using Banvel Industrial Herbicides for over five years: "Alligator weed and pennywort are real problems in navigation work. we control 'em with Banvel 720. We also maintain our recharge areas, and it works beautifully there, too. Banvel 720 works on hardwoods and softwoods, where 2,4-D would only be effective on one species. The favorable ecological impact is another important reason for using Banvel 720. Without the Banvel, we would have some serious problems."



**John (Jack) Bogle, President of the R. H. Bogle Company, Alexandria, Virginia.**

The R. H. Bogle Company has been a pioneer in the control of brush along railroads: "We've been using Banvel products for the last six or seven years. Today, we're using Banvel 720 as a general brush killer. Also to spot treat woody plants, such as pines. Banvel 720 also has an aquatic label in eleven southern states. So it gives us the flexibility to spray along ditches. And it's at least as good, if not a little better on price with other herbicides. For mixed brush control, Banvel 720 is highly efficient."



**M. L. Bugh, landscape architect, Indiana State Highway Commission, maintenance division.**

M. L. Bugh has worked closely with Purdue University to develop a strong, affordable weed control program for Indiana highways. He's been specifying Banvel 720 and Banvel 4-W.S. since 1975: "Economy is a major factor when we consider a weed control program. But we look as much at performance as at cost. Banvel 720 combines the best of both. Two applications of Banvel look like four of 2,4-D. And, applied the right way, Banvel is as safe to the environment as any other chemical we've used."

These industrial vegetation control specialists get all they ask for with the Banvel line of products. Shouldn't you? Contact your Velsicol salesman and see how Banvel industrial herbicides can work for you.

For the salesman in your area, call or write:  
Velsicol IVM  
341 East Ohio Street  
Chicago, Illinois 60611  
312/670-4962

Velsicol reminds you, before using any pesticide, please read the label. \*Banvel is Velsicol's brand name for dicamba.

Velsicol Chemical Corporation  
World Headquarters • 341 East Ohio Street  
Chicago, Illinois 60611  
Velsicol is an operating company of Northwest Industries, Inc.

Write 175 on reader service card

**VELSICOL®**



tion and Management Notes, a new publication from the University of Wisconsin-Madison Arboretum, will be available to interested persons on request.

The publication, to be made up mostly of short notices dealing with the techniques and principles of restoring and managing communities of native plants and animals, is intended to en-

courage communication between researchers, managers, naturalists, landowners, and others involved in the active conservation of natural and semi-natural areas.

To obtain a copy, contact WR Jordan, III, The University of Wisconsin-Madison Arboretum, 1207 Seminole Highway, Madison, WI 53711, 608/263-7888.

## PLANTS

### Perlite Institute offers plant guide

The Perlite Institute has announced publication of a two-page plant guide for the use of lime on plants susceptible to fluoride.

The guide, prepared by Dr. Raymond Sheldrake, states that when limestone is added to a soil mix, the amount of fluoride in the plant leaves and soil solution decreases. Copies of Perlite Plant Guide Number 1 may be obtained from Perlite Institute, Inc., 45 West 45 Street, New York, NY 10036.

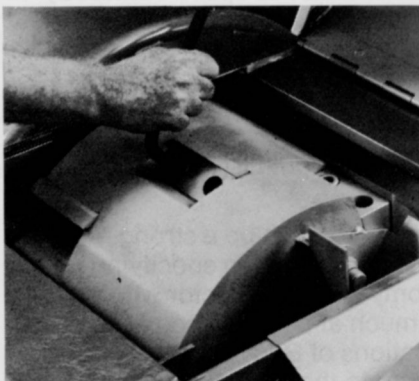
## "Sound Conditioned" M & M Brush Chippers

for...  
less noise...  
more efficiency

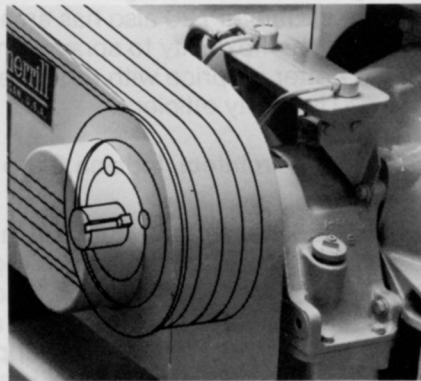


Applying engineering designs which "Sound Conditioned"\* our industrial scrap reduction machinery, Mitts & Merrill can modify our brush chippers for low noise levels. At the same time, those engineering features which have made Mitts & Merrill the leader for years have been retained.

\*Copyright Mitts & Merrill, Inc., 1973, 1974, 1975. All rights reserved.

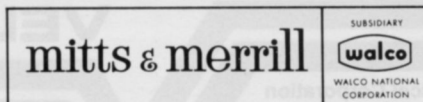


**Staggered knife pattern**, for years a Mitts & Merrill feature, has always resulted in a lower noise level. First, by segmenting the noise source. Second, through smoother cutting action. Third, by producing smaller chips.



**Optional torque converters** and the heaviest steel cylinder — even without an external flywheel — combine to give positive cutting action under the most rugged conditions. Isolates the engine from shock. Minimizes maintenance.

**Plus** • Positive safety-lock pin for greater operator safety • Swing-away, folding feed chute protects cutting chamber; allows instant access and increases maneuverability • Heavy duty construction includes coil spring, torsion-type suspension, and box tubular steel frame.



Dept. WTT 52, 109 McCoskry St., Saginaw, Michigan 48601

Write 142 on reader service card

### Golf Show from page 8

Kurtz, and plant selection for the golf course by Dow Garden horticulturist Douglas Chapman. The United States Golf Association program on the final day discussed balancing quality with economy on the golf course.

One of the highlights of the research session was Dr. Noel Jackson's tracking of the turf disease *Ophiobolus* patch in the East. More cases are being reported in that area, especially with Penncross bentgrass. Bluegrass and ryegrass tend to move in where bentgrass has been weakened by the disease. The disease causes patches up to five feet in diameter after a few years of no control. Jackson said pH and moisture control and use of another bentgrass can help curb the spread of the disease. The disease was first noticed in turf in the Pacific Northwest where it is commonly found on cereal crops.

Dr. Houston Couch compared the phytotoxic conditions of the various systemic fungicides for turf. Couch warned that these compounds can accumulate in the soil and reach harmful levels. Common bluegrass and ryegrass are least sensitive to damage by systemic fungicides. Bentgrasses and Merion Kentucky bluegrass have exhibited higher susceptibility to damage.

Dr. Bob Kneebone from the University of Arizona provided a comprehensive study of turf water needs. Although subirrigation reduces evaporative loss it does not provide the necessary leaching out of salts required in many dry areas. Kneebone said evaporation rates can be reduced by changes in cutting height and texture, increasing infiltration rates of the soil, and se-

Continues on page 92