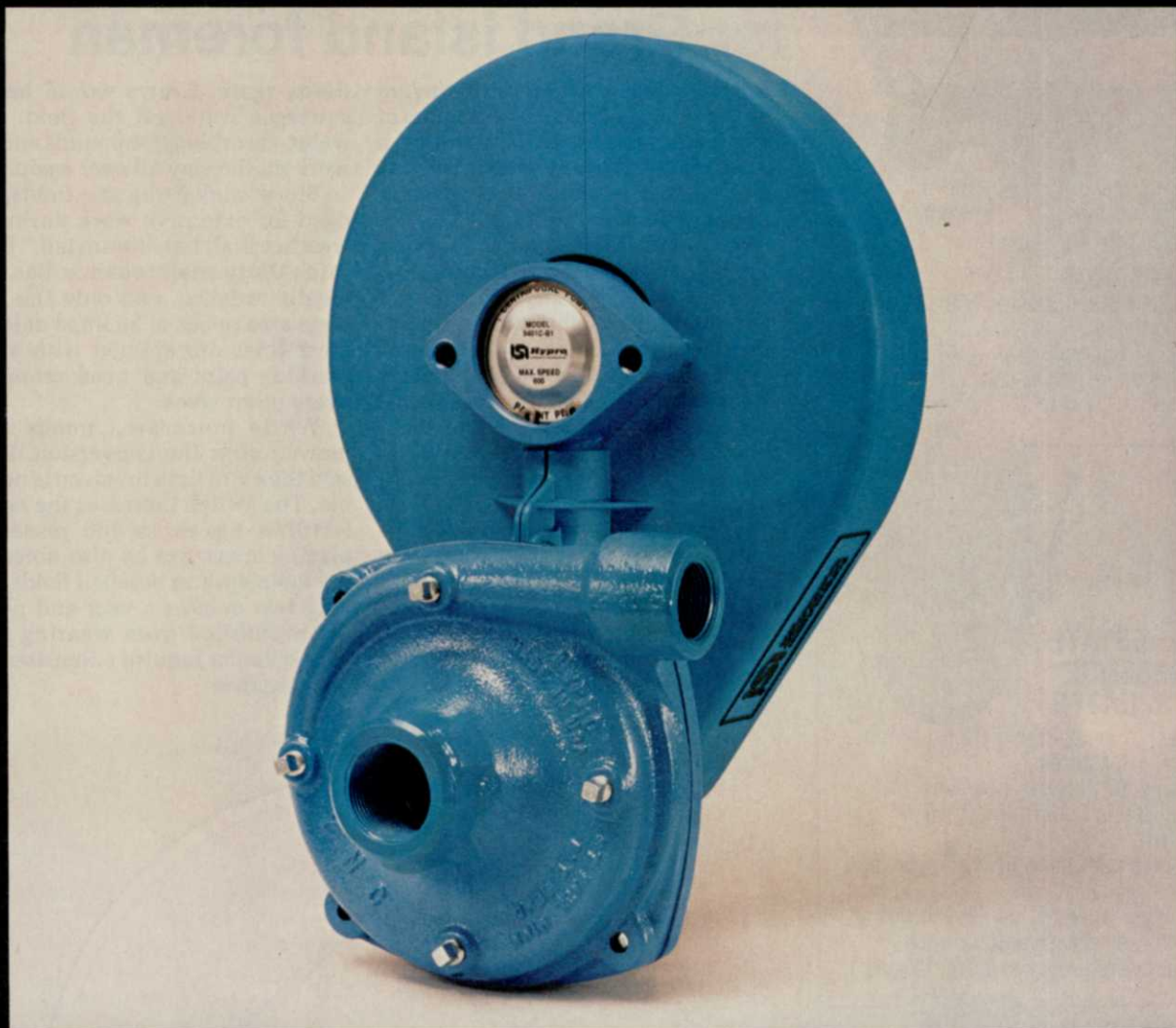


# New from Hypro: Belt-Drive Centrifugal Pumps.



**Easy to install, easy to maintain on tractor or trailer sprayers. And, now, Hypro has lower prices, too.**

There's never been a lighter, tougher, lower cost centrifugal built! In the new Series 9400 Belt Drive Centrifugal Pumps, Hypro introduces the high volumes you want and the low pressures you need for accurate, reliable sprayer performance. You get Hypro quality and durability throughout...at a new low Hypro price.

Compare these features: 600 and 1,000 RPM models, 66 GPM or 75 GPM at 40 PSI. Positive

timing belt drive, single bolt design for fast, easy pump and belt adjustment or removal. Super-tough epoxy-coated cast-iron housing. Stainless steel shaft. Corrosion resistant all-nylon impeller. And these are all standard!

Now is the time to look into the benefits of the new, low cost Hypro Series 9400 Belt Drive Centrifugal Pumps. Write today for full details.

 **Hypro**  
A DIVISION OF LEAR SIEGLER, INC.

347 Fifth Ave. NW, St. Paul, MN 55112 • (612) 633-9300

Circle No. 257 on Reader Inquiry Card



## Estate Turf Spreader Model 700

\$365.00  
Freight Included



- Spread seed, fertilizer, lime, sand or de-icers
- Big 800 lb. capacity
- Ground driven
- Rugged Steel chassis with Polyethylene hopper
- Unique double-action drag chain prevents clogging while calibration is provided by 0 to 2½ sq. in opening

Model 108  
\$217.00  
Freight Included



### ESTATE "PRESSURE" SPRAYER

Perfect for spraying fruit trees, shrubs, yards, or pastures.

- Heavy duty 15-gal. poly tank.
- Adjustable booms sprays 10-ft. swath.
- Comes with hand held sprayer, and 10 ft. hose.
- Sprayer operates on 12-volt power, with easy access on/off switch.
- Lightweight, easy to store, (41 lbs.)

### ESTATE "VERSATILITY" WAGON Model 300

\$479.00  
(5 ft. bed)



(Add \$72.00 for dump option) Freight Included

- 1-ton hauling capacity with hand operated hydraulic dump system
- Heavy structural steel frame
- Removable Side Racks
- High Flotation Tires
- 5 ft., 6 ft. & 7 ft. beds available
- Also, single axle and tandem axle trailers available

Country Manufacturing, Inc.  
P.O. Box 104 K-3  
Fredericktown, OH 43019  
(614) 694-9926

## Grass fields save hand work for Grand Island foreman

How do you cut costs and still provide the same level of service? Directors of municipal parks and recreation departments all over the country constantly ask themselves that question at budget time.

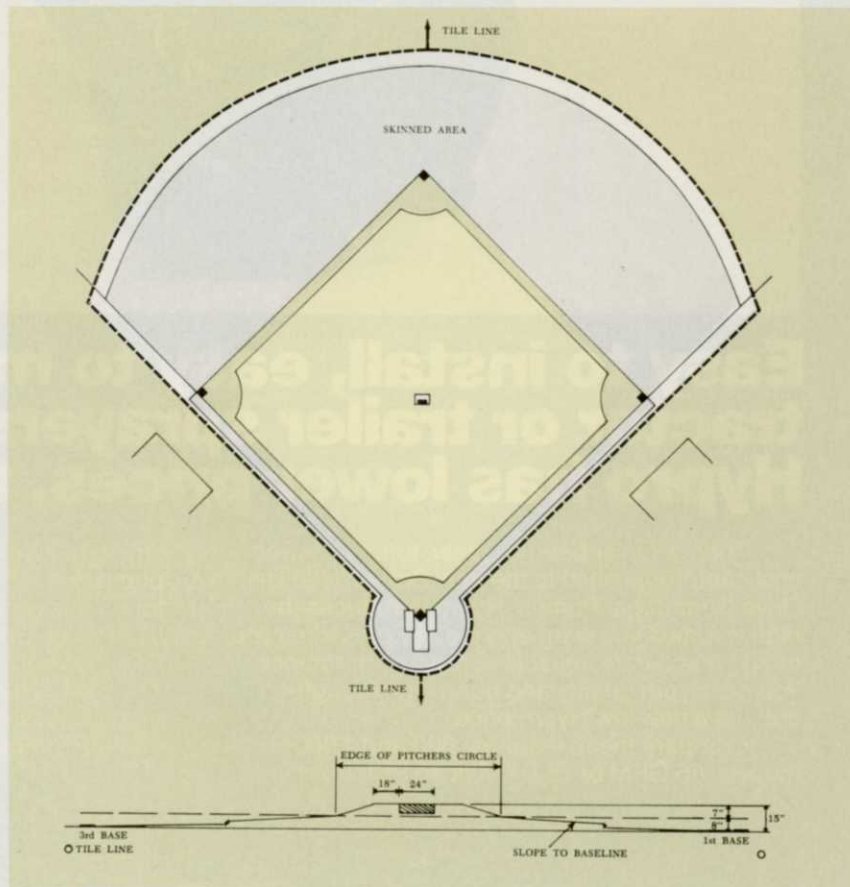
Raymond Billica, parks foreman for the town of Grand Island, NY, came up with one answer: his staff converted several of the town's baseball and softball fields into "all grass" fields. Only the eight-foot diameter pitcher's mound (on baseball fields) and a 12-foot diameter home plate area are left in clay, while the baselines and base areas themselves are overseeded.

Before converting the fields, Billica's crews screened the fields every day, hand raking the pitcher's mound, home plate and the bases. Foul lines and coaching boxes had to be marked out, and after heavy rains it took extensive manpower to shape up the

fields again. Crews would have to squeegee water off the field, apply water-absorbing compounds and then work up the clay all over again.

Since converting the fields, "the need for extensive work during wet weather is all but eliminated," Billica said. Daily maintenance has been greatly reduced, and only the home plate area needs to be lined daily. All grass lines are applied with a field marking paint and need retouching every other week.

While more area needs to be mowed after the conversion, Billica said the extra time involved is negligible. The switch increases the need to fertilize, top dress and reseed the playing areas, but he also noted that the town's youth baseball fields (used only two months a year and players are prohibited from wearing metal cleats) do not require extensive extra maintenance.



Billica left only an 8-foot diameter pitcher's mound and a 12-foot diameter home plate area clay while baselines and base areas themselves are overseeded.





# Walk a fine line

Choose from Jacobsen's complete line of rugged walk-behind rotaries.

Get precise cutting and powerful performance—get a Jacobsen.

Choose from three cutting widths: 32", 36" or 50". And a variety of engines, from 8 to 16 hp.

These rugged, easy to handle machines are built for daily use. The mower decks feature heavy duty spindles and bearings. Plus heat treated steel blades.

Finger-tip controls make your job easier. A special traction clutch

lets you handle tricky terrain, and allows free wheeling in neutral. A convenient gear selector gives you one reverse and five forward speeds.

Other standard features include: easy 4-point height adjustment; only two belts; large wheels and tires; a special guard for easy trimming around trees; and large

fuel tanks up to 3 gallons.

Options include a comfortable trailing sulky; and a big 3.3 bushel grass catcher with dust deflector.

So get behind a Jacobsen. You'll be walking a fine line.

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

J-3-4



**JACOBSEN**  
**TEXTRON**

Jacobsen Division of Textron Inc.

Engineered from the ground up.  
Circle No. 121 on Reader Inquiry Card

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# PRODUCTS

## Toro unveils two walk-behind rotaries

Traction units that Toro says are more maneuverable than any currently on the market are the main features of the new 36-inch and 52-inch walk-behind rotary mowers unveiled by the mowing equipment manufacturer this spring.

A unique T-Control steering design coupled with power reverse provides easy controlled operation for trimming near trees and other obsta-



cles, while simply releasing the steering "T" stops the mower. The mowing decks on these models are the same size as used in Toro's Groundmaster riding rotaries, as well as the pin-and-bracket height of cut adjustment that lets workers quickly change cutting heights without tools.

Circle No. 180 on Reader Inquiry Card

## Prescription blending with Basic 4 Injector

Now available to mount on your existing spray equipment, the Agro Chem Basic 4 Injector automatically injects from 1 to 4 products into your spray hose at any dilution desired. Powered by your existing pump, the Basic 4 mounts on all sprayers, records quantity of chemicals used and changes the chemical mix instantly on command. Special problems encountered on the lawn or fairway can be readily solved with the automatic custom-blending made possible with this device.

Circle No. 181 on Reader Inquiry Card

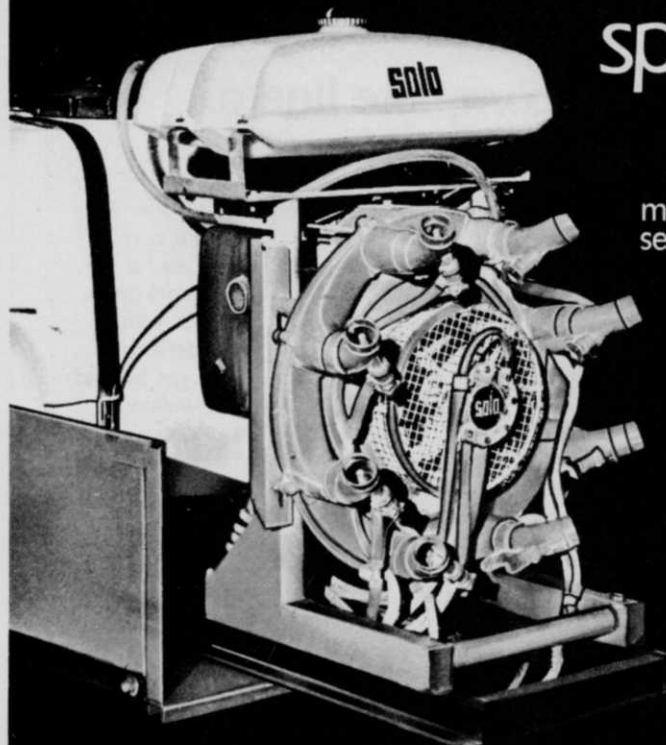
## Shindaiwa model is lightweight trimmer

The Shindaiwa T-20 is designed to be the best trimmer value for the serious landscaper. Weighing 9.75 pounds, the T-20 is the world's lightest straight-shaft trimmer available, according to the manufacturer.

It includes a 1.1 hp 21.1cc engine.

# don't spend a fortune on spraying equipment

## check with **SOLO** first



With the **Trac 419/32**, SOLO provides you with a modern low volume high concentrate mistblower, self-contained, mounted on a frame with 32 gallon formula tank and with its light-weight of only 130 lbs. empty, it is ready to fit any carrier, from pickup truck to garden tractor or trailer.

Or... build a system of your choice with SOLO'S **Trac 419**, using any tank or frame.

Or... modernize an old pump/air blast spray rig with SOLO'S **Trac 419**.

The SOLO 419's come with their own powerful 12½ hp engines, prepiped and can treat a 40 ft. swath, 20 ft. high... or up to 50 ft. in any direction with optional **TELEBLAST** nozzle.

ULV application possible.

Also available with skid mounted 55 gallon tank.

Send for free brochure or ask your dealer for **SOLO Trac 419**.

SOLO INCORPORATED, 5100 Chestnut Avenue, P.O. Box 5030 - Newport News, VA 23605-0030.

# SOLO

Circle No. 148 on Reader Inquiry Card



**BEFORE**



**AFTER**



Before and after treatment for control of hydrilla with AQUATHOL® K Aquatic Herbicide.

# Get results like this with Pennwalt Aquatic Herbicides

Pennwalt products control many troublesome weeds and algae, in-

cluding hydrilla, coontail, milfoil and pondweeds.

### Biodegradable

All Pennwalt aquatic herbicides are based on endothall. Endothall salts disappear rapidly from the water and soil through microbial degradation and do not accumulate in the food web. Prop-

erly applied, Pennwalt aquatic herbicides provide a satisfactory margin of safety to birds, mammals, and aquatic fauna. And Aquathol formulations have a wide margin of safety to fish.

### Contact Action

Pennwalt aquatic herbicides kill weeds by contact. For best results, they should be applied as soon as the aquatic weed

problem appears and weeds are actively growing.



### Flexible Application

The application of Pennwalt aquatic herbicides can be fast, precise and economical. Application of liquid or granular formulations may be made by

air, by boat or from the shore to treat small or large areas of lakes, ponds, rivers and canals.

### Complete Line

The Pennwalt line of aquatic herbicides and algicides: an effective way to get rid of weeds and algae.

- AQUATHOL® K** Aquatic Herbicide
- AQUATHOL®** Granular Aquatic Herbicide
- HYDROTHOL® 191** Aquatic Algicide and Herbicide
- HYDROTHOL® 191** Granular Aquatic Algicide and Herbicide.

All pesticides can be harmful. Read label carefully and use only as directed.

**AGCHEM**  
**PENNWALT**  
CHEMICALS ■ EQUIPMENT  
HEALTH PRODUCTS

Pennwalt Corporation, Three Parkway, Philadelphia, PA 19102 • (215) 587-7219

Circle No. 139 on Reader Inquiry Card

ADV 8437/4-83/6958

APRIL 1984/WEEDS TREES & TURF 75





The T-20 is built with an engine anti-vibration system for comfortable operation and a diaphragm carburetor for all-position cutting. Other features include electronic ignition, spark arrestor muffler, four ball-bearing gearcase and one-piece drive shaft.

Circle No. 182 on Reader Inquiry Card

### Tennant offers 2-year sweeper warranty

The Tennant Model 360 rider sweeper offers customers the latest developments in sweeper design, warranty and factory support, according to the manufacturer.

The new sweeper uses a rotating seal that combines with the broom to hurl debris into the unit's 16 cubic-

foot hopper for improved loading and larger payload. The seal also seals dust in the hopper. The unit sweeps a five-foot path at speeds up to 8.5 mph and can clean 178,000 square feet per hour. It's also backed with a 2-year, 2,000-hour warranty plus guaranteed parts shipments.



Circle No. 183 on Reader Inquiry Card

### Fish fertilizer is odorless, convenient humus gives best for less

Albert's Best Odorless Fish Humus offers natural composted fish fertil-

izer in an easily handleable form.

Mixed with half wood by-products, the formula includes N, P, K, Ca, Mg, S and a large number of trace elements found in seaweed and other ocean products for a balanced plant diet. Albert's Best is free of weed seeds and nematodes due to the heat generated during the composting process, and has an inoffensive odor suitable for many applications, including use as potting soil.

Circle No. 184 on Reader Inquiry Card

### MMM expands operations stateside

Europe's largest replacement reel and bottom blade manufacturer, Mowing Machine Maintenance, has opened shop in the United States with domestic headquarters in Andalusia, AL.

The firm uses specially-hardened steel similar to car spring material for its products, which attain tensile strengths of 110-120 tons. MMM super strength cutting cylinders utilize a thin cutting face with greater relief from friction, which provides a more precise cut for less power. Those cylinders also virtually eliminate break-

## What makes a Cushman turf vehicle worth the investment:

Turn your crew's walking time into working time. It's the fastest way to increase productivity.

If you stop to figure how much time your crew spends every week —just walking—you'd probably be shocked.

You'd also understand the economics of taking your crew off their feet and putting them into one of our tough turf vehicles.

Take the Cushman Runabout®, for instance. It carries two workers and up to a half ton of fertilizer, sand, sod or supplies.

The Runabout's 18-hp engine features a 4-stroke cycle for extra torque and longer life (a 12-hp model is also available).

For smaller needs, and budgets, consider the Cushman Turfcart™. It too can transport a pair of workers at up to 14 mph. And there's cargo space for rakes, hose, trimmers or up to 250 pounds of other supplies. The sturdy 7-hp engine can run all day on just a little gas. And a sealed-beam head-

light lets the work continue into the night.

### A free demonstration.

Of course the best way for you to learn about the Cushman Runabout and Turfcart is to see them in action. Right on your own grounds.

To do that, contact your Cushman dealer or call toll free 1-800-228-4444.

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CUT4-2045

ing, binding and mid-season grinding, according to the manufacturer. The reels are guaranteed from defects for one year while bottom blades are warranted for 90 days.

Circle No. 185 on Reader Inquiry Card

### Walker Mower has compact features

The Walker Mower easily outmaneuvers walk-behind mowers on the turf with its hydrostatic ground drive, while its compact dimensions get into the same tight spaces the walk-behinds reach without secondary cutting.



The first built-in grass catching system available in the industry with no external chutes, blowers or catchers to limit maneuverability also comes with the Walker models. Other features in the compact rider include a low center-of-gravity that makes for easy handling on slopes, flexible cutting deck suspension, timed gear/PTO drive shaft for the blade drive to provide a compact deck size and low maintenance, and a tilt-up body for easy drive train servicing and maintenance.

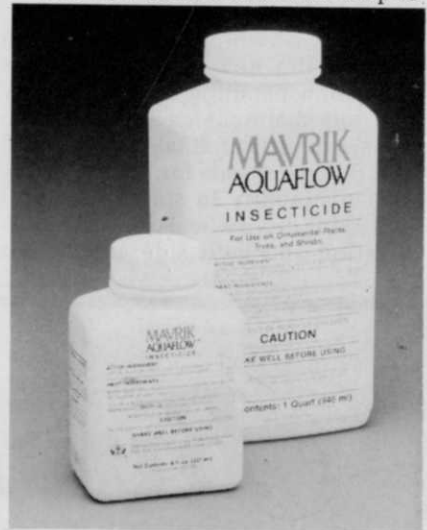
Circle No. 186 on Reader Inquiry Card

### Aquaflow available in quart containers

Mavrik Aquaflow, the broad-spectrum insecticide developed specifically

for use on ornamentals, is now being packaged in one-quart containers in addition to the 8-ounce bottle currently available to the industry.

The new container can treat up to



**Coming in May  
Trends in Trimming  
and  
Edging Equipment**

16 acres, and Aquaflow acts primarily as a contact poison similar to photostable pyrethroids. It is effective against aphids, thrips, whiteflies, leaf-eating caterpillars, lygus bugs, flea-beetles, cucumber beetles and leafhoppers.

Circle No. 187 on Reader Inquiry Card



# CUSHMAN®

5064 Cushman, P.O. Box 82409, Lincoln, NE 68501

*It works harder because it's built better.*

APRIL 1984/WEEDES TREES & TURF 77

## Sickle bar mower gets tall grass, weeds

Sensation Power Equipment Division has added a sickle bar mower to its line of heavy-duty commercial lawn maintenance equipment.

Built with a 5-hp Briggs & Stratton engine, the new mower provides maximum handling ease, durability and low maintenance, according to the manufacturer. It features forward and reverse speeds for easier cutting maneuverability in small areas and unlocking drive wheels for easy transportation and both side and height



adjustments.

Circle No. 188 on Reader Inquiry Card

## Vibrating plow attachment new from Vermeer

The V-3018 vibratory plow, engineered specifically for the V-430 Trencher, is now available from Vermeer Manufacturing Co.

A self-contained hydraulic system provides maximum efficiency, while



the shaker-type unit uses the counter-rotating action of sealed vibratory weights to direct bury cable and flexible tubing up to 1-inch diameters. The V-3018 comes equipped with either 14-inch or 18-inch alloy steel blades. Circle No. 189 on Reader Inquiry Card

# Buckner®

## Brings Beauty with 16 New Nyglas Valves for '84

For waste water, industrial, turf, drip, ornamental, residential and commercial installations.

- Combination angle/globe configuration with plug cuts inventory costs.
- Bodies of 30% glass filled nylon are corrosion resistant and nature proof.
- 1", 1½", 2" and 3" sizes.
- Low pressure loss.

### ELECTRIC

2-way 24 VAC solenoid.  
Buna N nylon reinforced diaphragm.

Model 20504  
2" FPT



### PRESSURE REGULATING

Adjustable pressure regulator features a locking device to maintain pressure settings.

Model 20106  
3" FPT



### CONTAMINATION RESISTANT

3-way solenoid normally closed.  
Handles dirty water and effluent systems.

Model 20906  
3" FPT



### HYDRAULIC

Normally open.

Model 21603  
1½" FPT



## Royal Coach Sprinklers, Inc.

4381 N. Brawley, Fresno, CA 93711  
(209) 275-0500 TWX 910 362 1167

Circle No. 145 on Reader Inquiry Card

## Mustang shows its best colors

Turf tests conducted at Rutgers University indicate that Mustang, developed by Rutgers and Pickseed West, exhibits the deepest green color among 19 tall fescue cultivars.

It was given a color rating of 7.2 on a 9-point scale, followed by Olympic (7.0), Hounddog (6.5), Rebel (6.2.), Falcon (5.5), Clemfine (4.4) and Kentucky-31 (4.3). According to the producers, turf data from major universities rank Mustang very high in overall turf quality, dark green color and disease resistance.

Mustang's tillering capacity is much greater than K-31, so it can produce adequate turf with lower seeding rates. The reduced rates provide turf that is a little more open than other types and therefore may be more tolerant of heat and summer stress.

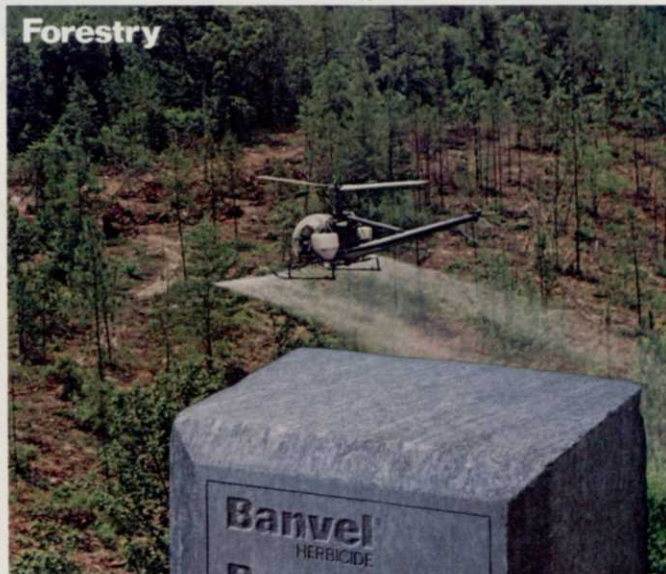
Circle No. 190 on Reader Inquiry Card

## Sprayer/utility trailer kits available

Constructed of 10- and 12-gauge steel with baked enamel finish, J.F. Wirth & Sons' new line of sprayer/utility trailer kits hold up to 1,060 pounds.

The kit includes two 4-ply tubeless tires as well as fenders and all electrical wiring and taillights. The trailers





**Build the best vegetation control programs on a cornerstone of Banvel<sup>®</sup> herbicide products.**

When you choose Banvel<sup>®</sup> herbicide products for vegetation management on roadsides, utilities, railroads, ditchbanks or in timber management, you . . .

- Leave native grasses intact.
- Get cost-effective results.
- Spray materials that are environmentally sound when used as directed.
- Control the broadest spectrum of broadleaf weed and brush species.
- Choose from a wide variety of approved tank-mix options.

Talk to your Velsicol representative and find out why Banvel herbicide products are the best way to build vegetation management programs that fit all your needs.



**Banvel<sup>®</sup> herbicide products.**  
**Your cornerstone of vegetation management**



Banvel<sup>®</sup> is a registered trademark of Velsicol Chemical Corporation. Read and follow label directions carefully.





are 48 inches long (overall length of 81.5 inches) with a 40-inch width. The class I coupler with the kit fits 1 7/8-inch trailer balls.

Circle No. 191 on Reader Inquiry Card

### Spec introduces straw mulch tackifier

Az-Tac, a general purpose straw mulch tackifier, is available from Spec International Inc. for hydromulching and hydroseeding applications.

A suspension agent in Az-Tac keeps wood fibers and seed in suspension and imparts high lubricity to the mixture. This results in more mulch per load and a more uniform distribution of mulch and seed, according to



the manufacturer.

Circle No. 192 on Reader Inquiry Card

### Aqua-GRO suppresses Poa on golf greens

Cornell University Agronomist Martin Petrovic has found Aqua-GRO, the soil wetting agent, to be effective and safe in suppressing *Poa annua* seed-

head development on golf course greens. Suggested rates provide 60-70 percent seedhead reduction with no setback in turf quality. Two application, ten days apart, are recommended.

Circle No. 193 on Reader Inquiry Card

### Classen Plugger fits in auto trunk

The Classen Model 200 Plugger Aerator fits easily into the trunk of a car. Stainless steel tines, driven by a 3 hp gasoline engine, can aerate 2,400



square feet per hour. The unit weighs 100 lbs. and can operate within three-inches of sidewalks.

Circle No. 194 on Reader Inquiry Card

Nitrogen costs money. So does water for that matter. And bluegrasses need them both.

Well, most bluegrasses.

Tests have shown that Rugby tolerates heat and drought better than most bluegrass cultivars. Rugby held its medium dark-green color and overall vigor on restricted moisture conditions. That makes *less watering* highly feasible.

A similar result happened in tests measuring the

# The Way Some Bluegrasses You Wonder What

