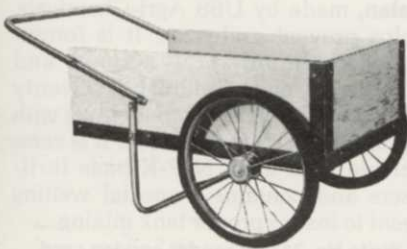




reinforces the blade. Two trip springs on the back allow the blade to "trip" forward and ride over obstacles without damaging the plow or vehicle.

Write No. 704 on reader service card

The TCK-42 trailer cart kit from Precision Products, Inc. assembles in a few simple steps into a sturdy trailer cart for



riding mowers and small tractors. The cart has a 15-cubic foot capacity or approximately 500 pounds. All hardware is included; it is usable with 5/8 or 3/4-inch plywood.

Write No. 705 on reader service card

The DH7 trencher, powered by a JI Case-built 3859 cm³ (219 in³) 4-cylinder, liquid-cooled diesel engine with 54 kW (72 hp.) is designed for underground



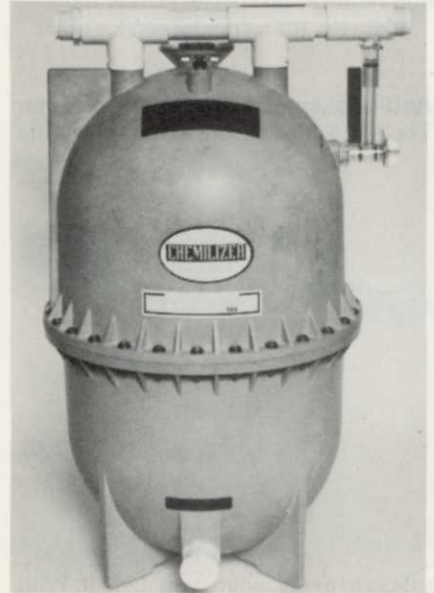
applications throughout the year in all digging conditions.

Hydrostatic trencher drive permits variable digging chain speeds plus reverse chain capability and allows the engine to continually operate at optimum rpm. Chainline speed can be reduced or increased to match digging conditions without varying engine rpm. Two separate hydrostatic systems

power the DH7—one for the ground drive and the other for the attachments.

Write No. 706 on reader service card

A lawn fertilizing device, a redesigned version of the Chemilizer, has been in-



Continues on page 62

Tues. P.M.

Drought Defense... A 2-Day Operation.

Ditch Witch equipment and our free Lawn Sprinkler System brochure can be your answer to providing drought defense in only two days*... without digging trenches.

Design and planning, line size and sprinkler head capacities, and step by step installation instructions... its all included in one easy-to-follow guideline.

Tips within this comprehensive set of instructions were supplied by some of the country's top sprinkler system specialists... and its all yours, absolutely free. Just ask your nearest Ditch Witch dealer for a copy or send for one today.

*based upon average sized residential lawn.

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- Please send the Sprinkler Installation guide.
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- Arrange for a call by my nearest Ditch Witch dealer.

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Company: _____

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Write 109 on reader service card



produced by Chemilizer Products, Inc. It is a liquid injector which can be connected to the water supply for underground or above-ground hose sprinklers. A small, round container with standard hose fittings, it can be moved easily to different locations. Installation requires no special skill or tools.

Write No. 707 on reader service card

Anti-backsplash sprinkler, Weather Tec's 15-50, directs undesirable



splash to areas where you need it. With no backsplash you eliminate the problem of slippery sidewalks, discolored

fences, and water stained windows. The stainless steel spindle is corrosion free, giving long life and trouble free operation.

Write No. 708 on reader service card

An interior watering system, The Water Machine, saves maintenance hours, reduces staff fatigue, and increases employee productivity. It is clean and quiet, using pressure instead of pumps, motors, or batteries. This eliminates clogging, breakage, and leaks. Two models are available, the WM-8 with flow rate of 4 to 6 gpm, and the WM-18, with a flow rate of 6 to 8 gpm. They hold 8.5 and 18 gallons, respectively. Cascade Designs, Inc. is the manufacturer.

Write No. 709 on reader service card

A 16-hp. lawn tractor, the 5116 Special, features a longer wheelbase, wider stance, and wider tread tires than any other Simplicity Manufacturing tractor. The deep-deck mower is supported by full width rollers at the rear, and pivots with the front axle to follow ground contours. This gives a more uniform cut and reduces the chance of



scalping. A quiet-running, twin-cylinder Briggs & Stratton engine and a 42-inch wide three-bladed mower are standard.

Write No. 710 on reader service card

USS Vertagreen 10% Concentrated Balan, made by USS Agri-Chemicals, helps prevent crabgrass. It is formulated for liquid-spray systems and offered as a dry material. Twenty pounds will treat one acre of lawn with 2 pounds of active herbicide. It is compatible with most N-P-K base fertilizers and contains a special wetting agent to insure proper tank mixing.

Write No. 711 on reader service card

Continues on page 64



A remarkable innovation in FORK LIFTS

The SPYDER

... versatile,
flexible,
maneuverable.

PORTABILITY: Can load itself on rear of truck or trailer bed or attach to custom designed trailer for towing behind car or pick up truck.

WEIGHT: Approximately 2700 pounds.

CAPACITY: Carry over 3,500 lbs. Comparable to 12,000 lb. Fork lift.

PERFORMANCE: Can outperform, outmaneuver, and out maintain any other fork lift.

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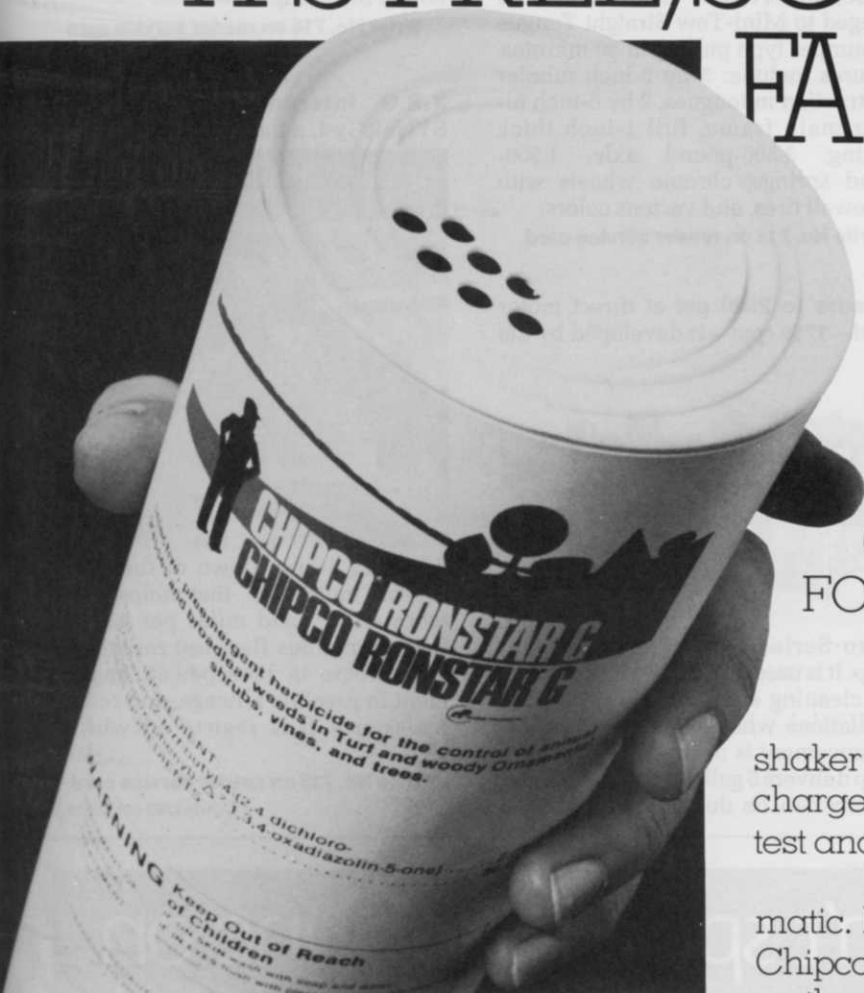


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IT'S FREE, SO GIVE IT A FAIR SHAKE.



TRY EFFECTIVE, LONG-LASTING CHIPCO® RONSTAR® G, THE PREEMERGENT CRABGRASS HERBICIDE FOR TURF, GROUND COVER AND ORNAMENTALS.

We'd like to send you this 2¼-pound shaker sample of Chipco Ronstar G, at no charge. All we ask is that you put it to the test and check the results.

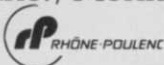
The test is simple. The results, dramatic. Following label directions, shake Chipco Ronstar G preemergent herbicide on three kinds of crabgrass troublespots.

One in turf. One in ornamental plantings. And one in ground cover.

Observe that, unlike other crabgrass herbicides, Chipco Ronstar G can be used on all three. It goes wherever crabgrass goes, all over the landscape.

Then, as time goes by, note that wherever you put the Chipco Ronstar G, you're getting great control of crabgrass, goosegrass, and a broad spectrum of other problem weeds.

And then, if you like the idea of getting excellent, long-lasting crabgrass control with a herbicide that's so versatile it's foolproof, you won't mind paying for your next batch of Chipco Ronstar G. Fair enough? Rhône Poulenc Chemical Co., Agrochemical Div., Rhône Poulenc Inc., Monmouth Junction, NJ 08852.



Chipco Ronstar G Sample Center WTT
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Birmingham, ALA. 35209

Return this coupon, along with your business card or letterhead, for your free sample of Chipco Ronstar G.

NAME _____
TITLE _____
COMPANY _____
ADDRESS _____
CITY _____ STATE _____ ZIP _____

One sample per company.
Offer expires June 1, 1981.

Write 137 on reader service card

Please read label carefully, and use only as directed.

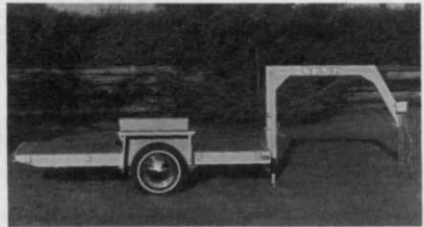
Lightweight snow throwers from Toro comprise the company's line of single-stage machines. At far right is the



Power Shovel, which weighs less than 12 pounds. Others from left to right are: S-200 with electric start, the S-200 with manual start, and the S-140, all with gasoline engines, and also the cord electric S-120.

Write No. 712 on reader service card

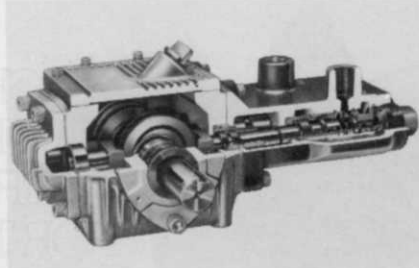
Hauling with compact pickups can be done efficiently with equipment from



Handy Mandy Trailer Mfg. Co. The Gooseneck Tongue (shown) can be changed to Mini-Tow Straight Tongue for bumper type pulling in 30 minutes. Features include: 3 by 5-inch tubular construction in tongues, 2 by 6-inch tubular main frame, full 1-inch thick decking, 3,500-pound axle, 1,500-pound springs, chrome wheels with whitewall tires, and various colors.

Write No. 713 on reader service card

Pressure to 2000 psi at direct motor speed—1750 rpm—is developed by the

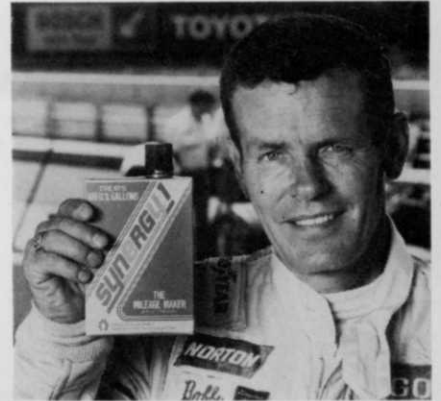


Hypro Series 2100 Triplex plunger pump. It is used as a component in pressure cleaning equipment and in other installations where high pressure liquid movement is needed. The plunger pump delivers 5 gallons per minute, but capacity can be doubled by adding a

second cylinder head to the opposite end of the pump crankcase.

Write No. 714 on reader service card

X.R.G. International is marketing SYNERGy 1, a formula of catalysts that



produces a breakdown of fuel hydrocarbon molecules, that helps extract more energy and miles per gallon of fuel. Numerous fleet test results show an increase in horsepower, improvement in gasoline mileage, and reduced emissions. It is registered with the EPA.

Write No. 715 on reader service card

Continues on page 68

don't spend a fortune on spraying equipment

build your own with a **SOLO-419**

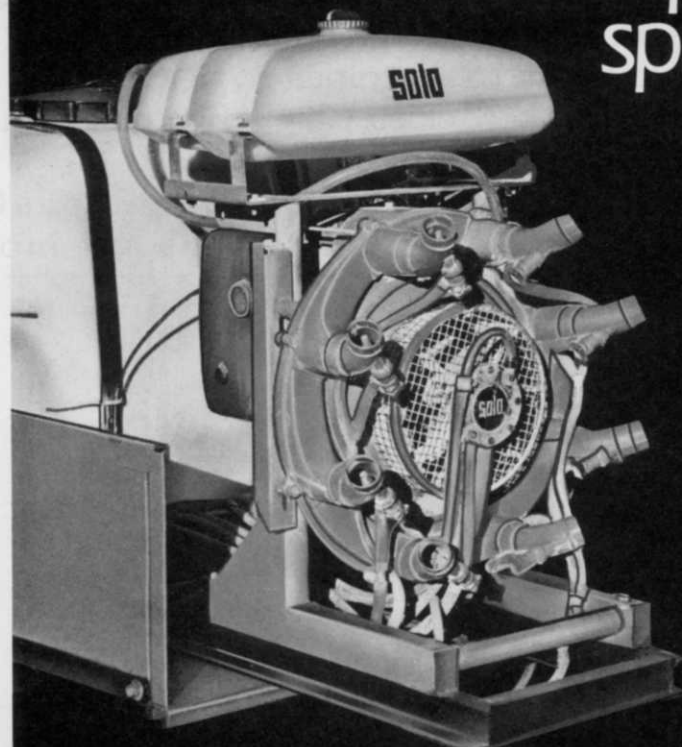
SOLO-419 is a versatile, powerful module that lets you design your own low-volume, high-concentrate mist blower system. The possibilities are limitless.

- Connect it to the tank of an old spray rig, or...
- Let SOLO provide it to you with its own formula tank and skid, or...
- Buy your own tank, make your own skid, and use SOLO-419 as the pump and misting source.

The system you build can be compact enough to fit a small tractor, pickup, trailer, ATV, or other vehicle. Its powerful 12½-hp engine lets you treat row crops, ornamentals, or orchards with a 40-ft swath, 20 ft high (up to 50 ft in any direction with optional TELEBLAST nozzle).

SOLO-419 is pre-piped, ready to be installed, ready to get you into dollar-saving low-volume or ULV mist blowing.

Send for free brochure or ask your dealer for SOLO-419.

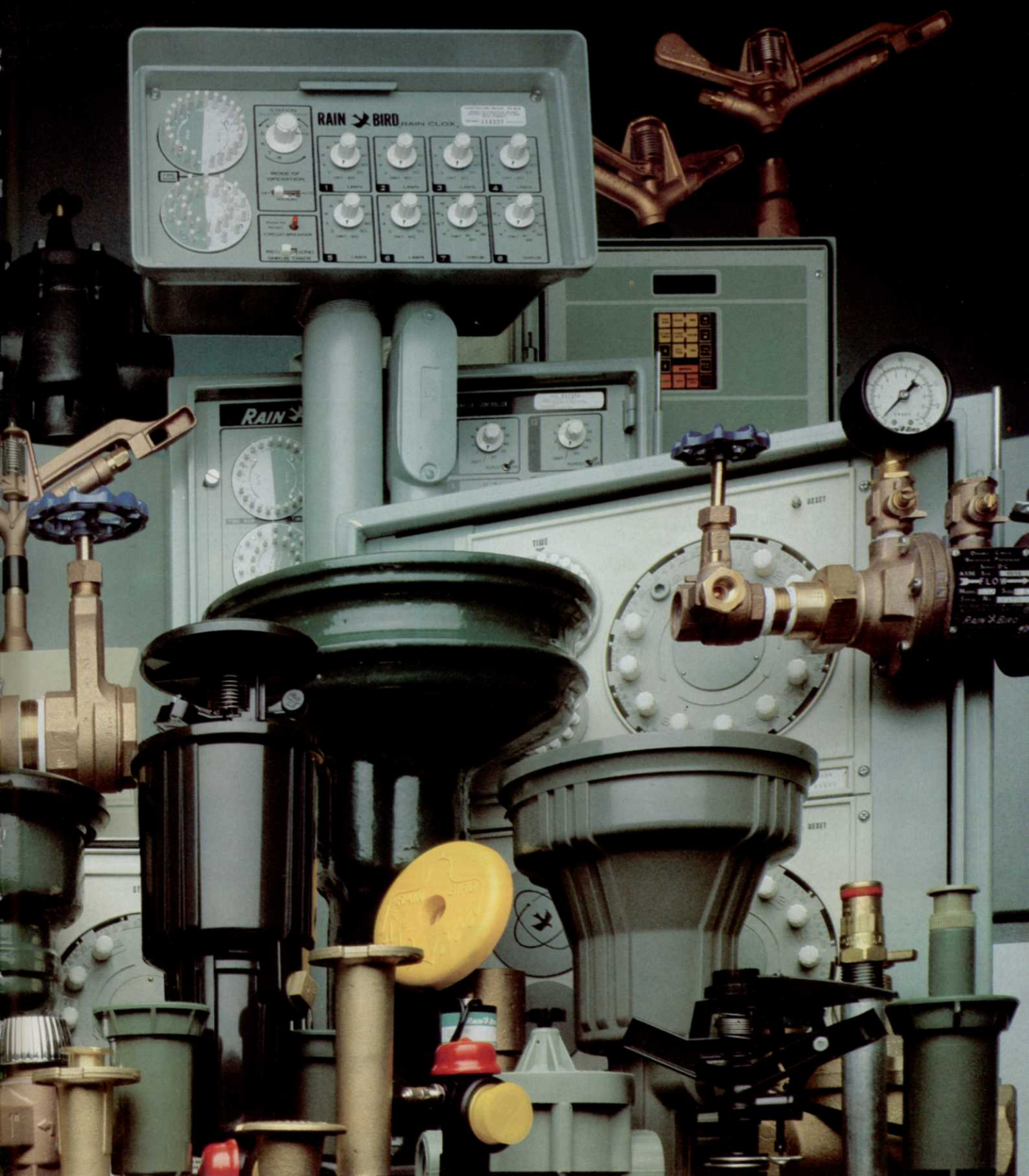


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New V-454: Keeps it simple.

Good news for utilities! Introducing the new V-454 from Vermeer. Designed specifically for utility work. Solid. Quiet. Simple. Loaded with important features that make it perfect for today's underground construction needs. Trencher. Backhoe. Cable Plow. Dozer. Huge 20.5 gallon fuel tank to keep you going all day. Easy access to regular maintenance points so that they don't get ignored or overlooked. Fold-up crumber for straight down starts. Positive

digging chain tensioning. Cutters bolted to both sides of the chain. Quick-mounting and dismounting attachments. Gas or diesel engine options. Big trenching capacity ... up to 18 inches wide, 60 inches deep.

Now that's a well built, well thought out digging machine! But, most important, built by a company that has set the industry standard for quality.

See your Vermeer dealer today.



VERMEER V-454: Digs up to 18 inches wide, down to 60 inches deep (standard). Installs cable direct down to 24 inch cover depth without surface disturbance. **ATTACHMENTS:** Trencher. Backhoe-blade. Vibratory Cable Plow. Dozer Blade. **FOR COMPLETE INFORMATION:** Call Toll-free (800) 247-2347. In Iowa call collect at (515) 628-3333.

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Get on stream with NELSON'S N.E.W. program in '81

L. R. Nelson Corporation's N.E.W. program is designed to make your '81 season the best ever.

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Newer Economical Watering

N.E.W. products, featuring N.E.W. rotors, pop-up sprays, and controllers makes for one of the most complete lines in the industry; products designed with you in mind; reliable products that are easy to install and maintain.

Nelson Early Winter Nelson Easy Winner

N.E.W. programs. The Nelson Early Winter and the Nelson Easy Winner programs are all part of Nelson's N.E.W. program to help you generate additional sales.

Nelson Easy Warranty

N.E.W. Policy. As an indication of how confident we are of the dependability of Nelson Landscape and Turf equipment, we've introduced the Nelson Easy Warranty policy; a N.E.W. policy that backs the entire product line.

Nelson's program for '81 is designed with you in mind!

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Worry



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PEORIA, ILLINOIS 61615

Write 154 on reader service card

A 4-post roll over protection structure (ROPS), designed to help protect the operator in case of roll-over, is one of several accessories offered with the Cushman Front Line tractor recently introduced. It is now available with a



60-inch mowing deck and several other accessories, including a snow thrower, multi-purpose brush, and cab set.

Write No. 716 on reader service card

Allied Chemical Corp.'s Agricultural Group offers a chelated nitrogen-iron



liquid fertilizer for foliar application. Called NFE, it has an analysis of 16 percent nitrogen and 4 percent iron to aid plants which cannot efficiently use available iron in the soil.

Write No. 717 on reader service card

Garden planter/transplanter, model 350, from Ellis Mfg. Co., Inc. can be used with a 10-hp garden tractor to

plant bare-rooted stock, potted plants, seedlings, bulbs, seeds, and nursery stock. Advantages over hand planting



include uniformity, less shock and damage to plants, even watering to root of plant, uniform depth, and speed.

Write No. 718 on reader service card

Ransomes Inc. (formerly Wisconsin Marine, Inc.) has introduced a line of snow throwers with a heavy-duty tractor-type transmission with all-steel gears. A simplified control single lever with inline shifting controls all forward



and reverse speeds without clutching. A rugged impeller rather than a fan discharges snow, which prevents plugging of the discharge chute.

Write No. 719 on reader service card

Embark plant growth regulator reduces the cost of maintenance in locations such as highway rights-of-way, airports, golf course ditchbanks, park and recreation areas, cemeteries, and school districts. It can provide 8 to 10 weeks of growth suppression in some parts of the country (north), and two applications can control plants for a whole season. 3M Co. makes it.

Write No. 720 on reader service card

A plastic cylinder called Sav A Tree fits around the base of young trees to protect them from lawnmower gouges, damage by children, and teeth bites from small, hungry animals. A circular

Continues on page 70

Does your turf make your reputation good as gold?

It does if it's seeded with Pennfine Perennial Ryegrass. Since its development by Penn State University in 1970, Pennfine has become the number one selling fine-leaved perennial ryegrass in the nation. And the thousands of turf professionals who continue using Pennfine are the biggest vote of confidence. You'll find top-quality Pennfine competitively priced and in ready supply. Pennfine Perennial Ryegrass, P.O. Box 923, Minneapolis, MN 55440

Write 145 on reader service card

ORTHENE-INSECT PROTECTION AT ITS BEST.

ORTHENE® Tree & Ornamental Spray is a giant step forward in protection. It kills a wide range of insects, on contact and with a lasting residual action. In fact, it's probably the only insecticide you need.

Here are some of the insects it kills; aphids, bagworms, birch leafminer, tent caterpillar, Douglas Fir tussock moth larvae, gypsy moth larvae, webworms, scales, California oakworm, spring and fall cankerworms, Nantucket pine tip moth larvae, and adult root weevil. **NEW FROM ORTHO**

A companion product from ORTHO is **ORTHO-MITE™ Ornamental Mitecide**. It's the perfect solution for mite problems on flowers and ornamentals.

AVOID ACCIDENTS: For safety, read the entire label including precautionary statements. Use all chemicals only as directed.



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Mail to: R. G. Gras, Chevron Chemical Company,
575 Market Street, San Francisco, California 94105



base secures the cylinder to the ground and serves as the foundation. Sav A Tree, manufactured by Mo-Ark-Mold, assembles easily and is anchored into the ground by two hollow spikes. The base collects water and fertilizer, which seeps into the ground through hollow pegs.

Write No. 721 on reader service card

Small offset tractor with engine mounted to one side provides operators with good visibility for cultivating nursery seedlings, doing park and grounds maintenance, and other jobs. It accom-

modates a wide range of implements and has a 540 rpm transmission driven PTO. A 30-hp., 99 cubic-inch, three-cylinder, water-cooled diesel engine powers this model 274 from International Harvester.



The machine uses a sliding spur-gear transmission with eight speeds forward and two reverse. A category 1, three-point hitch provides full position control and return to selected depth. A 5.7 gpm pump provides the pressure for all hydraulics.

Write No. 722 on reader service card

Two rotary mowers, the Lawnfilte Professionals from MTD Products Inc., come with a 4-hp. Tecumseh XL engine with sealed solid-state ignition and double-protection, fine-filtration air



cleaner. Both mowers carry long sealed bearings, reinforced lower handle supports, rugged throttle, large capacity gas tank (1.2 gallon) with gauge cap, and easy-rolling 8-inch steel wheels with thick-wall tires.

Model 618 (left), a side-discharge 20-inch mower, has a cast aluminum deck that won't dent, rust, or corrode. Model 7638 (right) cuts a 22-inch rear swath and discharges from the rear. A powerful vacuum lifts the grass blades and collects clippings in a 2½ bushel grasscatcher.

Write No. 723 on reader service card

Miracle-Gro spikes for trees provide trees and large shrubs with necessary nutrients in an easy-to-use form. One



application of the concentrated 10-20-10 formula with iron and zinc is usually sufficient for one year. Stern's Garden Products, Inc. makes Miracle-Gro and packages it in a box with six spikes.

Write No. 724 on reader service card

Does your turf's appearance make you feel blue?

Then it's time you started using Pennfine Perennial Ryegrass. Pennfine has proved itself for nearly a decade with the toughest customers of all: Thousands of turf pros all across the nation. It's used consistently on many of the nation's most prestigious turf areas. It should be on yours as well. Pennfine, the best-selling fine-leaved perennial ryegrass available. Pennfine Perennial Ryegrass, P.O. Box 923, Minneapolis, MN 55440

Write 146 on reader service card