Testing Tensile Strength

1975 MANAGERS GUIDE TO EQUIPMENT AND SUPPLIES
Pennfine Perennial Ryegrass.
Maybe it's got a weakness, but nobody's found it yet.

For three years now, the professional turf community has been putting certified Pennfine Perennial Ryegrass to the test. The results are in:

Pennfine has consistently outperformed other fine-leafed ryegrasses in trials from Pennsylvania to Florida.

More importantly, Pennfine has consistently matched or exceeded the expectations of turf management people on golf courses, athletic fields, sod farms, parks, cemeteries and public grounds from Maine to California.

No one has reported a real weakness. All the characteristics the Penn State researchers were seeking when they developed Pennfine have proven out in actual application.

Soft fibres to facilitate mowability were the foremost consideration in breeding Pennfine. Both trial data and feedback from the professionals who've used it indicate that Pennfine is the cleanest cutting ryegrass available today.

Pennfine's excellent disease resistance, exceptional decumbency, persistence under a variety of management conditions, fine texture and compatibility with both Kentucky Bluegrass and fine fescue have also been demonstrated. And in the production fields of the Pacific Northwest, a major effort is being made to meet the already heavy demand for certified Pennfine Perennial Ryegrass.

If you would like specific information, write: Pennfine Perennial Ryegrass, P.O. Box 923, Minneapolis, Minnesota 55440.

Pictured is one of the select seed production fields of the Pacific Northwest — this one in the Willamette Valley of Oregon — where certified Pennfine Perennial Ryegrass is produced under controlled growing conditions.
Test it yourself, on your own turf with the new Pennfine Test Kit.

It's free. And it contains enough seed to develop a 100 sq. ft. Pennfine test plot, along with technical data and evaluation sheets. So now you can see for yourself, under your own conditions, if Pennfine is really as good as we say it is. You will be able to test it for establishment, mowability, management requirements, persistence and any other qualities that interest you. If turf quality is important enough to you to warrant this kind of testing, send us the coupon and we'll send you a Pennfine Perennial Ryegrass Test Kit.

The Pennfine Perennial Ryegrass Test Kit

Everything you need to plant and evaluate your own 100 square foot plot of Pennfine.

☐ Please send me the free Pennfine Perennial Ryegrass Test Kit.
☐ Yes, I'm responsible for turf purchase decisions.

NAME ____________________________
TITLE ____________________________
CLUB OR COMPANY ________________
ADDRESS __________________________________________

CITY __________________ STATE __________ ZIP __________

PLEASE NOTE: This offer is restricted to turf professionals, people whose livelihood depends on the establishment and maintenance of quality turf.

WTT-9
THE COVER—Pull strength of netting-reinforced sod is demonstrated at the American Sod Producers annual summer meeting. Sod strength tests along with equipment demonstrations and exhibits highlighted the three day event.

MY REASONS FOR TREES—Most golf course superintendents are eager/scared (choose one) to plant more trees. Richard Boehm, golf course superintendent, doesn't look at trees as a necessary evil but hopes to create a more positive atmosphere with an intensive tree planting and maintenance schedule.

PROTECTION, SERVICE AND ... PROFIT—Replacing a tree, whether a landmark or backyard shadetree, is more than a money matter. However, steps can be taken to insure against one of trees' natural destroyers — lightning. John Duling tells how the commercial arborist can profit as well as provide service in lightning protection for trees.

COOL WEATHER WEED CONTROL—Testing the synergistic effects of herbicides at the Lawn Institute, Marysville, Ohio, is proving that season-end applications are effective for broadleaf weed control. A detailed report that may help you make better use of a relatively slack season.

AMERICAN SOD PRODUCERS ASSOCIATION CONFERENCE REPORT ... 18

HYACINTH CONTROL SOCIETY CONFERENCE REPORT ..................... 22

1975 MANAGERS GUIDE TO EQUIPMENT AND SUPPLIES—One of the most important steps when buying equipment is selection. This two-part guide first lists manufacturers and their equipment and supplies. Product groupings and manufacturers are listed second.
As a professional, you know

FALL IS THE BEST TIME
OF ALL TO FEED A TREE...
with JOBE'S TREE FOOD SPIKES

William Kobel, Superintendent, Union Country Club, Dover — New Philadelphia, Ohio

Autumn is tree feeding time. Because you are a professional, you know that Jobe's Tree Food Spikes hammered into the ground over the roots of trees will help overcome weaknesses brought about by summer heat, lack of moisture, ravages of insects, battering of winds. Especially this fall, when drought has prevailed over much of the country, trees need feeding.

Jobe's Tree Food Spikes will stimulate new root growth right up until the ground is frozen solid. As the root system develops this fall, it gives trees as well as shrubs the stamina to survive winds, rain, sleet, freeze and thaws of winter. Feeding this fall also gives the tree an earlier start next spring since a reservoir of plant food is provided.

Fertilize the trees you're responsible for with Jobe's Tree Food Spikes. Call your local jobber or distributor or order direct: 5 cases @ $30 per case, 15 cases @ $25 per case, freight prepaid.

For More Details Circle (117) on Reply Card
Green Industry crops are non-agronomic, and are of necessity treated as minor crops when pesticide laws are being debated. This is true despite the fact that commercial turfgrass, trees, nursery crops, etc., are in the multi-billion dollar class.

Now that we are facing October '76 as a deadline for certification of applicators and registration/recertification of all pesticides, we either act in unison as an industry or we abide by whatever handouts the agronomic lobbies and legislative bodies determine for us.

We are being had in areas relating to research. Why? Because chemical manufacturers are faced with super costs in getting a new product registered for use. Not only more dollars are needed today, but more years of development are required to determine the validity of a new pesticide. The food crop may justify the risk; the non-food crop will seldom do so.

We are being had by law-making bodies. Because most green industry crops are low-priority compared to food crops, the new supportive research data needed to grant special pesticide uses for specific species are not being developed. Further compounding the problem is that many previous pesticide control chemicals are now illegal, the result of the Federal Environmental Pesticides Control Act of October '72.

Questions relating to this situation are basic. Who is to blame? What can be done? Answers are equally basic. Both chemical companies and government regulatory bodies are utilizing a practical approach. Attention is given the agronomic (largely food related) crops.

The second answer as to what the Green Industry can do is more involved. But to various segments of the Green Industry, what is actually done may well determine their existence.

For a starter, the many segments — nurserymen, custom applicators, sod growers, arborists, golf superintendents, park superintendents, structural pest control operators and all the others — must act as a single entity.

(continued on page 27)
Chipco Microgreen Liquid is a blend of metallic micronutrients. It will correct yellowing of turf and ornamentals caused by soil deficiencies. Treated turf and ornamentals develop healthier root systems. So they're less susceptible to disease and moisture stress. Chipco Microgreen Liquid: easy to use, effective and extremely economical.

Once you use a Chipco something, you'll use Chipco everything.

For More Details Circle (105) on Reply Card
A Clinton, Massachusetts firm turned over $10,000 to EPA in the largest civil settlement ever reached under the Federal Insecticide Fungicide and Rodenticide Act. EPA filed a 12-count complaint against the Van Brode Milling Co. of Clinton on May 14 charging that the firm had made three shipments of an unregistered and misbranded pesticide product. EPA claimed the product was not registered under federal law and the front label did not contain required cautionary statements; did not contain a list of ingredients nor concentration of ingredients; did not list the volume or weight of the product. The shipments were of a product called "Water Purification Tablets."

Alleged antitrust violation charges were dismissed against Monsanto Co. recently. The jury trial centered around allegations that Monsanto's marketing practices in the distribution and sale of its agricultural herbicides to distributors were in violation of federal antitrust laws. The case was brought against Monsanto by Reed Brothers, Inc., Winterset, Iowa. Reed claimed conspiracy relating to alleged territorial and customer restrictions.

EPA's August 2, 1974 intention to suspend label registrations of aldrin and dieldrin will not effect its manufacture or use in the commercial pest control industry, according to a Shell Chemical Co., spokesman. "Although the EPA proposal is to suspend other label registrations of aldrin and dieldrin, it is the intent of Administrator Train to permit the sale and use of labelled, formulated stocks of aldrin and dieldrin on hand as of the effective date of the suspension order proposal," he said. "Thus the sale and application of properly labelled formulations of aldrin and dieldrin for other pest control applications such as soil insect control on turf and nurseries,...will be permitted until existing formulated stocks are depleted."

A Standards Advisory Committee on Hazardous Materials Labeling was named by The Department of Labor. OSHA boss, John H. Stender, said the committee will develop and recommend to OSHA standards for categorizing and ranking hazards of industrial materials. They will also recommend required warnings and safe handling procedures, to protect employees from toxic substances. The 15-member panel includes four representatives each from employees, employers and the federal government, one representative of state government and two from general public.

OSHA is preparing an environmental impact statement of a proposed standard for worker exposure to carbon monoxide. They are particularly interested in receiving public comments and information regarding the substance.

Section Four of the revised Federal Insecticide, Fungicide and Rodenticide Act dealing with certification standards for commercial pesticide applicators becomes final October 1974. Deadline for public comment was March 1974.
Fylking Kentucky bluegrass is a superior, elite bluegrass that burst like a star on the scene in the sixties!
Since then Fylking has established records making it the perfect choice for the official grass at the environmental World’s Fair, Expo ‘74.
Fylking has proven to have superior resistance to disease and drought; withstands traffic. Its thickly woven rhizome root system develops dense sod so quickly Fylking can be lifted in 90 days. Fylking can be mowed at 3/4 inch (even 1/2 inch) and thrive. It absorbs carbon dioxide pollutants, gives off oxygen, cools air by releasing water vapor.
A superior mixer, Fylking greens up earlier in spring, stays greener in summer heat, remains green longer into fall.
Choose Fylking and your customers are getting a grass good enough for a World’s Fair!

Fylking Kentucky Bluegrass
U.S. Plant Patent 2887
Another fine product of Jacklin Seed Company
Richard Boehm is a man who loves trees.

He would love them even if he didn’t need them, but as superintendent of the Wright-Patterson Air Force Base Military Golf Course he feels trees are not just nice to have but an absolute necessity.

So necessary that in his first year, he put out about 490 new trees. That was only more than twice as many as started with. So far this year he’s put out fifty more.

The course is directly across a road from the flight line, and you know where they build airfields: on the biggest, flattest hunk of real estate they can find.

Boehm’s course does have some low, rolling “hills,” and there is a nice little lake between tee and green of one par three hole, but mostly it’s next thing to runway flat.

Fairways going in opposite directions are often separated only by a narrow rough and out-of-bounds markers .... or were, until Boehm started setting out his trees.

Now those trees delineate the fairways, decorate the tees and greens and do their part to make sure golfers use and hone their skills.

“...There are a number of reasons

(continued on page 27)
And the green grass grows all around

Anyone can show you lush, green grass—on someone else's course. Rain Bird shows you the exclusive features of our Pop-up Sprinkler Model 51, that let you grow your own. For instance...

The highest pop of any sprinkler (2-5/16"). Grass can’t distort the distribution pattern. You get uniform growth—no dry rings or wet spots.

Special nozzle features assure a tight, wind-resistant stream for longer throw and equally efficient close-in watering without puddling. That means even growth throughout a greater area.

Positive retraction spring prevents heads from sticking up—a hazard to mowers and sprinkler heads. There’s no danger of missed waterings or cuttings.

Positive seal features mean maximum pressure through the nozzles—with easy accessibility of parts promoting faithful maintenance.

Don’t settle for pretty pictures. With Rain Bird at work, you can see all the lush, green grass you like. It grows all around—all around your course.

RAIN BIRD
Glendora, California 91740
Protection, Service and . . . Profit

Everybody stands to gain from a reported trend in our industry — a noticeable increase in purchase of lightning protection materials for trees by arborists and supply houses. Obviously, a growing number of tree protection systems are being installed by people in an excellent position to do so properly and profitably — arborists or tree experts.

The benefits to customers are great for lightning is a major cripper and destroyer of trees and the danger is greatest to those shade and specimen trees that are oldest, tallest, and most valuable. Future generations benefit, too, when historic and irreplaceable trees are protected.

And there are at least a half dozen advantages for us. I have been interested in lightning protection for valuable trees since my early training in the '30's and feel an obligation to advise customers to protect their trees against this danger. We have found that we have gained in the following ways from our lightning protection work with trees:

1. Added business is gained without much additional investment for our trucks, ladders and tools are largely the same.

2. Installation techniques and skills also fit our current knowledge and training. Methods of fastening equipment to trees are quickly learned by our crews. In fact, a skilled climber is in demand in the lightning protection installation business as well as in ours.

3. Lightning protection work is profitable for manufacturer-suppliers furnish counsel and even layouts, as well as special materials when and as needed.

4. Sales leads come naturally and easily for customers whose trees have been damaged by lightning come to us.

The bigger and more valuable the tree, the likelier target it is for lightning injury or destruction. This large white oak in Indiana, a huge specimen of the species found to be struck most often, is in an area of above-average thunderstorm activity. Its protection was a sizeable job.
Lightning protection installation comes naturally. It fits the knowledge, tools, skill and experience of tree climbers.

5. There is great satisfaction, I find, in furnishing to customers a means of preventing damage, as an alternative to repairing it after lightning has struck, provided it is repairable.

6. Finally, lightning protection materials, equipment, sales, methods and manpower all fit so well with our basic business that it can be encompassed profitably in an over-all business sense. You can offer a valuable service as a profitable expansion.

Why and How Lightning Strikes

Lightning strikes trees because they are better conductors than air. Trees most likely to be struck are lone trees, the tallest in a grove, those at the edge of a grove toward an approaching storm, and trees located close to buildings where wiring or plumbing might enhance ground conductivity.

From thousands of lightning property losses reported over a two-year period, the LPI picked 1,000 losses, large and small, in which the lightning bolt's point of entry into the house was known. In 112 of those cases, or 11.2 percent, the bolt first struck a tree, then flashed to the house in search of better ground.

Lightning codes require the house to be fully protected with separate protection on each tree taller than the house which is within ten feet of the building.

Safety a Major Factor

The need to preserve trees of historic or sentimental value has, in the past, been the main motivation for installing protective equipment. However, other factors, such as the desire to protect buildings, cars, and people from the damaging side effects of a lightning bolt striking a tree may enter into the picture.

From 80 to 90 percent of all live-
According to Code recommendations, two down-conductors are needed for large trees having trunks more than three feet in diameter. Cables lead from air terminals at top and on main branches to at least two grounds, located outside main root system.

This outstanding banyan tree in Cypress Gardens, Fla., is now protected against lightning. Installation was made during the National Arborist Association meeting in Tampa last winter.

How Installations Are Made

There are several codes and standards covering lightning protection installations for trees. The National Arborist Association now has a standard; the National Fire Protection Association’s Lightning Protection Code has a section on tree protection, as does Underwriters Laboratories’ Master Label Requirements. The Lightning Protection Institute’s new Code includes this tree protection standard:

One main cable should be coursed from the air terminal at the top of the main trunk or branch to the ground terminal. Acceptable secondary conductors should be coursed from miniature branch points, as far out on the main branches as possible to the main conductor on the tree trunk.

To avoid possible injury to roots by locating depth gound-
In December 1973, Trimec “Fairway” applications were made to this series of 100 square foot test plots in 9 replications for “heavy” rate and 5 replications at normal dilution. The plot in the foreground and the one immediately behind the figure were treated. A check plot is in front of the figure.

Cool Weather Weed Control

By ROBERT W. SCHERY, Director, The Lawn Institute

We have had great success with late autumn or early winter broadleaf weed control, using a synergistic combination of herbicides of the Trimec or Trex-San type. These effective broadleaf weed controls widely used on golf courses seem destined for homeowner availability as well.

The basic components are the well-proven 2,4-D, MCPP, and dicamba herbicides. They are carefully combined in proportions that research has proven especially effective, resulting in a formulation that “packs more power” than the sum of its components. This is synergism, of course, in which two or more compounds working in tandem enhance the effectiveness of one another. As a result Trimec usually controls more weeds, at lighter rates, than would an equivalent concentration of any single component, and with consequent greater safety. For added assurance on “touchy” species such as bent-grasses, a special “Bentgrass” formulation steps up the MCPP proportioning over that in the “Fairway” formulation so much used for bluegrass-based sods. Still a third formulation is offered for southern grasses such as St. Augustine. In all cases the herbicides come as a stabilized concentrate requiring only addition of the requisite amount of water. This avoids “workshed chemistry” difficult for inexperienced help unfamiliar with mixing accurately compounds of varying strength and formulation.

At the Lawn Institute we have been well impressed through the years with “season-end” control of broadleaf weeds. Sprayings made earlier — in late summer or autumn — kill existing weeds, of course, but seem not to catch the late-starting dandelions, plantains, chickweeds, veronicas, and suchlike. Measured by the frequency of weeds in the next spring’s lawn, treatments made after mid October have usually shown up better than earlier ones. Not only will the later treatment conquer almost all of the weeds destined to sprout for the year, but it takes advantage of a relatively slack season (when mowing is through, and labor demands have materially eased). Phenoxy herbicides alone are not too potent in cooler weather, so that certainly late treatment should include some dicamba. Although Trimec-type formulations are essentially non-volatile, even in warm weather in my experience, an added safety factor with late-season use is that the deciduous ornamentals have finished their growing season and will not sustain drift damage such as might occur when buds are bursting and tender new foliage is exposed.

Although herbicidal control of winter weeds such as annual veronica, rosette crucifers, and volunteer dandelions in shrub beds as well as in lawns had proven most successful, we decided to conduct more elaborate late-season testing in 1973. Thus in early December Trimec
<table>
<thead>
<tr>
<th>WEEDS CHECKED</th>
<th>REPLICATES</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>Plantago spp., treated</td>
<td>1 22 33 30 6 8 12 7 7</td>
<td>127</td>
</tr>
<tr>
<td>Plantago spp., control</td>
<td>11 13 20 40 43 39 10 35 7</td>
<td>218</td>
</tr>
<tr>
<td>Dandelion, <em>Taraxacum</em> treated</td>
<td>1 1 1 3 2 1 1 17 8 35</td>
<td>35</td>
</tr>
<tr>
<td>Dandelion, <em>Taraxacum</em>, control</td>
<td>6 10 14 12 12 3 16 40 40</td>
<td>153</td>
</tr>
<tr>
<td><em>Prunella</em>, treated</td>
<td>0 4 12 20 0 0 8 0 44</td>
<td>44</td>
</tr>
<tr>
<td><em>Prunella</em>, control</td>
<td>18 5 100+ 0 0 17 30 4 0</td>
<td>174+</td>
</tr>
<tr>
<td>Wild Carrot, <em>Daucus</em>, treated</td>
<td>0 0 0 0 0 0 0 0 0 0</td>
<td>0</td>
</tr>
<tr>
<td>Wild Carrot, <em>Daucus</em>, control</td>
<td>6 10 14 12 12 3 16 40 40</td>
<td>153</td>
</tr>
<tr>
<td>Other <em>Compositae</em>, treated</td>
<td>0 0 0 0 0 0 0 0 0 0</td>
<td>0</td>
</tr>
<tr>
<td>Other <em>Compositae</em>, control</td>
<td>18 5 100+ 0 0 17 30 4 0</td>
<td>174+</td>
</tr>
<tr>
<td>Rushes, <em>Juncus</em>, control</td>
<td>No tally</td>
<td>Almost none</td>
</tr>
<tr>
<td>Rushes, <em>Juncus</em>, control</td>
<td>No tally</td>
<td>Abundant</td>
</tr>
</tbody>
</table>

Weeds in all treated plots, 215 — in all controls, 582

Table 1. Exemplary weed counts on April 29, for treatments made previous December 1, using 6 ounces of Fairway Trimec in 3 gallons of water sprayed over 1,000 square feet. Talleys are from “quick counts” in a 5-foot band across center of plot.

<table>
<thead>
<tr>
<th>WEEDS CHECKED</th>
<th>REPLICATES</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>Plantago spp., treated</td>
<td>32 20 22 16 90</td>
<td></td>
</tr>
<tr>
<td>Plantago spp., control</td>
<td>11 5 6 34 56</td>
<td></td>
</tr>
<tr>
<td>Dandelion, <em>Taraxacum</em>, treated</td>
<td>15 6 0 1 22</td>
<td></td>
</tr>
<tr>
<td>Dandelion, <em>Taraxacum</em>, control</td>
<td>13 31 19 3 66</td>
<td></td>
</tr>
<tr>
<td><em>Prunella</em>, treated</td>
<td>0 0 0 0 0 0 0 0 0 0</td>
<td>0</td>
</tr>
<tr>
<td><em>Prunella</em>, control</td>
<td>13 75 0 21 109</td>
<td></td>
</tr>
<tr>
<td>Other <em>Compositae</em> &amp; misc., treated</td>
<td>0 2 3 0 5</td>
<td></td>
</tr>
<tr>
<td>Other <em>Compositae</em> &amp; misc., control</td>
<td>8 13 2 0 23</td>
<td></td>
</tr>
<tr>
<td>Rushes, <em>Juncus</em>, treated</td>
<td>No tally</td>
<td>Almost none</td>
</tr>
<tr>
<td>Rushes, <em>Juncus</em>, control</td>
<td>No tally</td>
<td>abundant</td>
</tr>
</tbody>
</table>

Weeds in all treated plots 117 — in all controls 254

Table 2. Exemplary weed counts on April 29, for treatments made previous December 2, using 2 ounces of Fairway Trimec in 3 gallons of water sprayed over 1,000 square feet. Talleys are from “quick counts” in a 5-foot band across center of plot.

“Fairway” applications were made to a series of 100 square foot plots in 9 replications for “heavy” rate and five replications at “normal” dilution. This particular Trimec formulation, on an active ingredient basis, is 27.6% 2,4-D, 13.8% MCPP, and 2.8% dicamba. Plots alternated with controls of equal size, and were hand sprayed at the rate of 6 ounces of Trimec in 3 gallons of water per 1,000 square feet for the heavier rate (2 ounces for the lighter rate). The test turf had been mowed but not weeded nor fertilized through the exceptionally rainy Ohio summer of 1973. Several severe nightly frosts had occurred, but the season as a whole was moderate and amply moist. Such grass as was present remained quite green, but warm-season weeds were giving ground. The most evident broadleaf weeds in the test area at this time were narrowleaf plantain (*Plantago lanceolata*) and selfheal (*Prunella vulgaris*).

Results from these treatments, as measured April 29, 1974, are summarized in the tables. The photographs show that weed control from the December sprayings stood out quite well into spring, even though any treatment is bound to be “temporary” where little grass exists to fill space vacated by the weeds. Even so, weed count showed about a two-thirds reduction at the heavier herbicide rate, and about half at the lighter rate. Plantains (both *P. major* and *P. lanceolata*) were the weeds least controlled, perhaps indicating the importance of dicamba in the formulation (dicamba is not particularly effective against plantain). But what was most surprising was thorough elimination of rushes (*Juncus spp.*) in the treated plots. Rushes are bunchy monocots looking a lot like fine fescue when young, but stiff and hard to mow. Rushes had become quite numerous in the test area during the wet cycle of 1972-73, but (mixing among a scattering of grasses) were paid scant heed, overshadowed as they were by the broadleaf weeds. If the rushes had been included in our tally, weed control statistics would have been even more impressive, since there were literally hundreds of rush plants in each of the check sections, almost none in the treated sections. Of course there is no damage to monocots in the grass family from the Trimec assemblage of herbicides.
The No. 1 name in golf course irrigation...

The country's top golf courses use TORO irrigation systems. For a number of very good reasons:

**REPEAT CYCLE WATERING** — TORO makes it practical. So you automatically get just the right amount of water for your soil and terrain. At the right time. And for the right price.

**CUSTOM TAILORING** — TORO automatic sprinkling systems are tailored to your specific requirements. No two golf courses are alike... so no two TORO systems are the same.

**THE STRONG, SILENT TYPE** — TORO sprinkler heads are made of tough CYCOLAC® Gear driven so they’re consistent and night-time quiet. Self-contained and sealed so a few grains of sand can’t bring things to a grinding halt.

**VALVE-IN-HEAD SPRINKLERS** — This TORO exclusive eliminates line drain puddles and damaged turf.

**VARIABLE SPEED GEAR DRIVES** — Nobody but TORO lets your sprinkling patterns overlap without overwatering.

**EASY EVERYTHING** — Easy servicing... from top to bottom instead of vice versa. Easy installation. Easy conversion... with TORO’s big, adaptable assortment of head sizes and variations.

**MORE THAN 50 YEARS OF EXPERTISE** — TORO’s learned a lot about total turf care in 50 years. And all that experience is available to you whenever you need it through our distributor network.

If you’ve seen a totally TORO golf course lately, we’ll let the results speak for themselves. If you haven’t, let us tell you more. Write TORO Irrigation Division, Dept. W-974, P.O. Box 489, Riverside, CA 92502.
A special exhibit area in hotel featured the latest developments in sod harvesting and handling equipment. Here ASPA members chat with commercial representatives.

Under the critical eye of sod producers and installers, this harvester gets a tough workout on some of Maryland's dry, rocky soil. This equipment demonstration took place at Dick White's Sod Farm.
meeting dates

Virginia Tech Field Days, Turf Research Center, Blacksburg, Va., Sept. 18-19.


Mississippi Turfgrass Conference, Holiday Inn, Biloxi, Miss., Sept. 23.


American Association of Botanical Gardens and Arboreta, annual meeting, Sheraton Hotel, Boston, Mass., Oct. 4-8.

New Jersey Golf Course Superintendents Association, turfgrass supplies and equipment field day, Montclair Golf Club, West Orange, N.J., Oct. 7.


Rocky Mountain Regional Turf Equipment and Product Show, Adams County Fairgrounds Exhibit Hall, Brighton, Colo., Oct. 10.

Southwest Turfgrass Conference, New Mexico State University, Las Cruces, N. Mex., Oct. 10-11.

Central California Regional Meeting, Western Chapter of the International Shade Tree Council, Community Center Bldg., Reedley, Calif., Oct. 11.

Hortiscope International Short Course "74" (Oct. 10-12) and 1974 Florida Nursery and Allied Trades Show (Oct. 11-13), Curtis Hixon Convention Center, Tampa, Fla.

Southern California Turfgrass Council, 14th annual exposition, Orange County Fairgrounds, Costa Mesa, Calif., Oct. 23-24.

Central Plains Turfgrass Conference, K-State Union, Kansas State University, Manhattan, Kans., Oct. 23-25.

Tidewater Shade Tree Conference, Norfolk Botanical Gardens, Norfolk, Va., Nov. 12.


New Jersey Turfgrass Expo '74, educational conference and trade show, Sheraton Poste Inn, Cherry Hill, N.J., Dec. 2-5.

Midwest Association of Golf Course Superintendents, 22nd annual turf clinic, Medinah Country Club, Medinah, III., Dec. 3.

Ohio Turfgrass Conference and Show, Ohio State University, Columbus, Oh., Dec. 3-5.


Delaware Turfgrass Conference, John M. Clayton Hall, University of Delaware, Newark, Del., Dec. 9.

Scientist Studies Pollutant’s Effect on Woody Plants

Plant physiologist Bruce R. Roberts of USDA’s Agricultural Research Service (ARS) is finding significant differences in the abilities of woody plants to take up sulfur dioxide (SO₂), a major air pollutant, from the space immediately around their leaves. Red maple, white birch and sweetgum seedlings have been shown to take up more SO₂ than rhododendron, white ash and azalea seedlings.

Using controlled temperature, light and humidity in a growth chamber at the ARS Shade Tree and Ornamental Plants Laboratory, Delaware, O., Roberts is gaining basic knowledge about relationships between woody plants and air pollution. He hopes this knowledge will enable him to recommend to city planners which trees, shrubs or combinations of plants would be most suitable as “pollution fighters.” New understanding also may help scientists find ways to protect plants from pollution damage.

Of the major air pollutants — ozone, SO₂, nitrogen oxides, ethylene, and fluorides — Roberts chose to work principally with SO₂. This pollutant can be used as a radioactive tracer to find out what happens to the gas after it enters the woody plant. Roberts has observed that SO₂ molecules are chemically altered soon after they enter the leaf — first they are oxidized to sulfites and then to sulfates. Some sulfuric acid may be formed, which might account for some of the pollution damage to plants, Roberts said.

Photosynthesis can be affected by SO₂ pollution. The pollutant damages chloroplasts in the plant cells where photosynthesis takes place. Roberts hopes to be able to diagnose the type and extent of pollution damage by examining affected cells.

Studies have indicated depression of photosynthesis. Red maple seedlings fumigated with 1 ppm of SO₂ for four to six hours took up slightly more carbon dioxide than unfumigated seedlings. In contrast, leaves of seedlings exposed to an SO₂ concentration of 6 ppm were severely damaged, permanently depressing photosynthesis. Seedlings exposed to 4.5 ppm were damaged, but their ability to photosynthesize rebounded rapidly.

Roberts’ SO₂ experiments indicate that, unless plants are injured by the pollutant, uptake remains constant — at least over a six-hour period. In some species of woody plants, he observed that the amount of uptake varied little, whether they were exposed to SO₂ concentrations of 1 ppm or 0.2 ppm.

“We’re not sure exactly what happens here,” Roberts said. “I think it involves the pollutant’s effect on stomatal opening.”

Roberts theorizes that stomates in the leaves of shade-tolerant trees may open and close faster, making these trees also more tolerant to pollution. If this theory is borne out in further studies, plant breeders will be better equipped to select trees for pollution tolerance.

Two More Seasons of Tight Fertilizer

The nation can expect continued tight fertilizer supplies through 1975 and 1976, said Robert C. Gunness, vice chairman of Standard Oil Company (Indiana).

Gunness said that nitrogen fertilizer shortages have developed during the 1973-74 season both in the U.S. and throughout the world, and the outlook is for continued domestic shortages during the 1974-75 and 1975-76 seasons. Domestic demand has risen sharply in the past two years. While Gunness views the probable shortfall at closer to five percent, he said estimates of the current U.S. shortage vary from five to 15 percent.

U.S. ammonia capacity, the source of nearly all nitrogen, has been flat since overexpansion in the 1960’s brought on drastic declines in ammonia prices. One new plant is scheduled for the early part of 1975, but no further additions to domestic capacity are expected until 1978. The result is the U.S. will have to look to increased imports to meet the higher demand for nitrogen fertilizer over the next several years. With foreign supplies of nitrogen also tight, it appears unlikely that enough will be available on world markets to fully meet U.S. needs, Gunness said.

As for phosphate, Gunness said considerable additional capacity is scheduled to come on stream in 1974 and 1975, and the current shortages of about eight percent are expected to be eliminated by the 1975-76 season. Ample supplies of potash, both now and in future years, are expected because North American production capabilities, especially in Canada, are considerably greater than expected demand levels.

Construction has started on this all-electric foundry for The F. E. Myers & Bro. Co., Ashland, Ohio. The $5 million, 110,000 square-foot facility is scheduled for completion in late summer, 1975.

Of the major air pollutants — ozone, SO₂, nitrogen oxides, ethylene, and fluorides — Roberts chose to work principally with SO₂. This pollutant can be used as a radioactive tracer to find out what happens to the gas after it enters the woody plant. Roberts has observed that SO₂ molecules are chemically altered soon after they enter the leaf — first they are oxidized to sulfites and then to sulfates. Some sulfuric acid may be formed, which might account for some of the pollution damage to plants, Roberts said.

Photosynthesis can be affected by SO₂ pollution. The pollutant damages chloroplasts in the plant cells where photosynthesis takes place. Roberts hopes to be able to diagnose the type and extent of pollution damage by examining affected cells.

Studies have indicated depression of photosynthesis. Red maple seedlings fumigated with 1 ppm of SO₂ for four to six hours took up slightly more carbon dioxide than unfumigated seedlings. In contrast, leaves of seedlings exposed to an SO₂ concentration of 6 ppm were severely damaged, permanently depressing photosynthesis. Seedlings exposed to 4.5 ppm were damaged, but their ability to photosynthesize rebounded rapidly.

Roberts’ SO₂ experiments indicate that, unless plants are injured by the pollutant, uptake remains constant — at least over a six-hour period. In some species of woody plants, he observed that the amount of uptake varied little, whether they were exposed to SO₂ concentrations of 1 ppm or 0.2 ppm.

“We’re not sure exactly what happens here,” Roberts said. “I think it involves the pollutant’s effect on stomatal opening.”

Roberts theorizes that stomates in the leaves of shade-tolerant trees may open and close faster, making these trees also more tolerant to pollution. If this theory is borne out in further studies, plant breeders will be better equipped to select trees for pollution tolerance.
NASA's Quarantine Vans To House Plant Pathogens

Quarantine vans built for the astronauts have been "recycled" for use by the U.S. Department of Agriculture (USDA).

In 1971, returning Apollo astronauts were picked up from the space capsule by helicopter and were transferred immediately to $140,000, six-ton, 30-foot mobile isolation vans. En route to more spacious quarters at the Lunar Receiving Laboratory in Houston, Texas, the astronauts spent four days in the vans, transported by ship and flatbed trailer-trucks. Today two of these four vans are being readied for a new kind of tenant — foreign plant pathogens for research on biological control of agriculturally destructive weeds.

A gift from the National Aeronautics and Space Administration (NASA) to USDA's Agricultural Research Service (ARS), the moon mission vans have rolled again, this time to the Southern Weed Science Laboratory in Stoneville, Miss. A third van is in the Smithsonian Institution and the fourth remains in Houston.

In Stoneville scientists will test plant pathogens such as the rust fungi, Uromyces rumicis, on curly dock (Rumex crispus), and Puccinia chondrillina on skeletonweed (Chondrilla junccear). Curly dock is found nationwide and is a problem in the humid South. Skeletonweed is a problem in Washington, Idaho and in several counties in California. The weeds compete for space, nutrients and water causing increased expense for chemical controls.

Because curly dock and skeletonweed have both been introduced from foreign sources without their normal complement of natural enemies, and because native pathogens have not been able to control the weeds over large areas, foreign pathogens will be imported from those countries where the weeds are native. They will then be isolated in the NASA quarantine vans, and tested for their ability to attack and damage only the host weed and their inability to damage other plants. After the pathogens have been thoroughly evaluated under quarantine conditions they may be released to help control the weed species.

The project will include studies on other weeds such as prickly sida, velvetleaf, spurred anoda, morning glory and nutsedge to determine if there are native pathogens with potential for biological control.

Plant Pathologist Howard D. Ohr is the ARS project leader in the study at the Stoneville laboratory.

Ciba-Geigy/Funk Merge

Ciba-Geigy Corporation announced that Funk Seeds International, Inc. has become its wholly owned subsidiary as the result of a merger of Funk and the agricultural division of Ciba-Geigy. Under the terms of the merger, stockholders of Funk prior to the merger are entitled to receive $17 in cash for each share held.

Army Weed Controllers Transferred to USDA

Five senior scientists from the Army's Vegetation Control Division, their support staff and an installation are being transferred to the U.S. Department of Agriculture (USDA) to begin new research on weed control.

The scientific team is headed by Dr. Robert A. Darrow. Office, laboratory and greenhouse facilities, and a 140-acre research site near Frederick, Md., needed to accommodate the group are also being transferred to USDA without additional capital investment.

The unit has a data storage and retrieval system that has information on the herbicidal activity of about 31,000 compounds. With this system, USDA will be able to increase the scope of its weed research already being done by the Agricultural Research Service (ARS). The laboratory will operate as an installation of the Chesapeake-Potomac area of the ARS northeast region, as an addition to ARS's existing plant disease research laboratory at Frederick.

A major research objective for this small contingent of scientists will be to develop technology for either inhibiting weed-seed germination or to stimulate germination at times of the year unfavorable to weed survival.

The lack of preventive weed control technology hinders efforts to reduce the cost of controlling weeds and also reduces the effectiveness of weed management programs. Herbicides are now applied to more than 160 million acres. The need for such wide applications could be reduced if scientists assigned to this research mission succeed in finding ways to reduce the vast amount of weed seeds in the soil and to prevent their recycling without adverse environmental effects.

Leo Donahue (left), administrator and legislative liaison for the American Association of Nurserymen (AAN), reviews the AAN's testimony for increased research funds with Congressman William J. Scherle, Republican from the Fifth Congressional District of Iowa. Scherle is a member of the House Appropriations Subcommittee on Agricultural, Environmental and Consumer Protection, and a long-time friend and supporter of the nursery industry.
Hyacinth President Favors Certification

Certification will benefit pesticide applicators. It will bring an air of professionalism. It will set the applicator aside from untrained labor. That's the thinking of Alva P. Burkhalter, president of The Hyacinth Control Society, soon to become The Aquatic Plant Management Society, Inc.

Besides professionalism, Burkhalter believes certification will offer the applicator a better salary, better advancement potential and more job security.

Burkhalter opened the recent annual convention of the Society at Winter Park, Fla. by saying that certification will also stimulate interest in the area of biological control, leading to "integrated management of aquatic control and encouraging expansion into other fields."

Switching to the energy crisis, he warned delegates to "avoid an 'attitude shortage' or an 'internal energy crisis' ... and get back to a hustling attitude in this Society."

The 1974 registration figure was 306 at this 14th annual convention. This was a near 30 percent increase over last year. Registered participants included delegates from several foreign countries and some 20 states. Research, sales, development, and industrial, governmental and educational progress highlighted the four-day sessions.

Appearing for the Environmental Protection Agency, John Ritch, director of the EPA Registration Division, stated "The registration division of EPA doesn't know all pesticide applicator problems, and thus doesn't have solutions, but," he said, "we're establishing contacts and learning."

According to Ritch, EPA's intent regarding federal registration is not to eliminate pesticides, but "that the use of pesticides be carefully managed to protect health and property with minimum adverse effects on the environment."

Robert D. Blackburn, formerly at the Aquatic Plant Management Laboratory of the USDA and now president of Florida Aquatic Weed Control, Inc., a private firm, traced the history of the battle against aquatic weeds in Florida and internal strife which have delayed control. Blackburn said, "While we argued in courts about what to do, water hyacinths continued to grow ..."

"We didn't carry out what we originally set out to do — management of aquatic weed control. We have to have a management program. We've got to learn to work together," he said.

Alva P. Burkhalter (right) turns the gavel over to L.V. Guerra, the Hyacinth Control Society's new president.

According to Blackburn, answers to the problems of aquatic weed control lie in integrating mechanical, biological and chemical controls and not in political circles. "Let's resolve some of our controversy by face-to-face contact instead of political maneuvering," he said.

More than 50 papers were presented in concurrent educational sessions. The research sessions featured such topics as fungi and water hyacinths, future utilization of water hyacinths for proteins and energy, hydrilla in Iowa and chemical retardation of hydrilla growth.

Applicators' sessions were devoted to operations and field techniques and treated subjects such as weed control with the bifluid invert system, effects of laser radiation on water hyacinth, boating and aquatic weed problems and various means of algae control.

Highlighting the sessions was a joint panel on what chairman John Gallagher of Amchem Products, Ambler, Pa., termed the Society's "Watergate" — the pros and cons of the herbivorous white amur.

Panel speakers included Burkhalter of the Florida Department of Natural Resources, Bill Woods of the Florida Game and Fresh Water Fish Commission, David Sutton of the University of Florida, and John Stanley of the Division of Fishery Research, Bureau of Sport Fisheries and Wildlife, Stuttgart, Ark.

The panel indicated that introduction of the white amur into Florida is still an unresolved issue, with many questions yet to be answered as the program moves from laboratory to Florida waters.

This year's annual banquet was a buffet-style luau held poolside at the hotel. Members were treated to a diving exhibition by a local high school swim team. Banquet speaker William E. Fulford, state representative of District 40, Florida, spoke on "Weeds and Politics."
Once the controversial fish is introduced into Florida, the situation may be irrevocable, so many view absolute safeguards and answers to plaguing problems as a necessity.

At the annual business meeting, the following slate of officers was approved by the Society for the coming year: president, L. V. Guerra, Texas Parks and Wildlife Department, San Antonio, Tex.; first vice president, Ray A. Spirknock, Central and Southern Florida Flood Control District, Lake Worth, Fla.; second vice president, Robert W. Geiger, The 3M Company, Pompano Beach, Fla.; past president, Alva P. Burkhalter, Tallahassee, Fla.; treasurer, Brandt G. Watson, Naples Mosquito Control District, Naples, Fla.; editor, David L. Sutton, Fort Lauderdale, Fla.; secretary, T. W. Miller, Lee County Hyacinth Control District, Fort Myers, Fla.; Nelson Virden of Jackson, Miss., and Kerry Stewart of Fort Lauderdale, Fla., as new members of the board of directors.

Next year the group will meet in San Antonio, Tex. Plans include a post-convention trip to Mexico City.

Society members listen attentively to the joint panel discussion on the pros and cons of the controversial white amur. John Gallagher of Amchem Products, Ambler, Pa., presided over the discussion.
One of the specially designed gang mowers draws attention from the members. This mower and others were demonstrated at the Larriland Sod Farm. Also featured were PTO-driven sweepers and a small spraying unit.

HE'S GOT IT MADE IN THE SHADE.

Glade
KENTUCKY BLUEGRASS
U.S. Plant Patent 3151

There's a strong new entry in the Kentucky bluegrass lawn field, selected for its attractive appearance, low growth profile and good overall turf performance, including an ability to grow in moderate shade. A selection from Rutgers University, Glade has excellent turf quality, and has demonstrated good resistance to important lawngrass diseases including stripe smut, leaf rust, and powdery mildew. Glade mixes especially well with other elite bluegrasses and fine fescues. Glade persists in areas of moderate shade where many other bluegrasses weaken because of too little sun. Nationally tested as P-29, it is one of the fastest germinating and establishing bluegrasses; quickly produces a heavy close-knit rhizome and root system, and a very attractive, leafy, persistent turf. Ask for new Glade for use in full sun or in mixtures with fine fescue for shade at your local wholesale seed distributor.
TREES (from page 10)

for putting trees on a golf course,” says Boehm. If trees are set out in the right places “. . . they define the hole and make a good backdrop for the hole. We try to keep nice open fairways with a few traps around the greens for the scenic value of that nice white sand. If a golfer hits down the fairway, he’s got a nice easy shot . . . but if he hits out in the boones he ought to be lost out there behind a tree. There are still some open areas, but I’m putting in trees to make those more challenging holes. Still, this is an easy course for the average golfer. Even with the trees he doesn’t get penalized that much.”

“I just want this place to look good and play good and be a good golf course, and the only way to do it is to define the holes. You’ve got a fairway on one side and a fairway on the other side and what’s the use of playing one way when you might as well be playing with the other group coming the opposite direction? You don’t want that; you want to be in your fairway and play your hole by yourself. You don’t want to share it, except with your playing partners. Never with the party playing the next fairway.”

It isn’t just a matter of putting out any old tree for the sake of it, but being a tree. Variety and placement are important.

“I like color,” says Boehm, “I like to put out the red maples and flowering trees; crabapples and purple plums. We get dark greens from our pines; red pine, white pine and Scotch pine. We also use mountain ash, lindens, honey locust, sycamore and maples.”

Boehm’s trees are not little bitty ones. The smallest are 7-8 feet high and big enough to do some good for the course right now, although, he says, “. . . they gave us some little ones this year, so we found places for them.”

You can’t just stick in a bunch of trees and forget them.

Boehm says: “Some people don’t believe in fertilizing trees.” He says it as if he really means some people don’t care about trees; perhaps consider them a necessary evil, existing mainly to make mowing and turf care more difficult, and in an age of soaring labor costs, more time-consuming.

It isn’t so.

“Maybe you can ignore an established tree. Some big old river cottonwood with a massive root system isn’t going to have any trouble finding nourishment. But a young tree — anything less than 8-10 inches in diameter — needs food.”

The old, established methods of fertilizing trees take time. You can go out with an auger and bored holes and pour in bulk fertilizer. It works, but you need the auger, a crew to run it and it’s time-consuming. If you broadcast fertilizer around the tree — enough to do any good — you either make the grass grow so much faster than surrounding grass that it’s unsightly, or you put down too much and burn the grass. There was no easy way.

Now there is, says Boehm. “We use Jobe’s Tree Spikes. As far as I know they’re the only people making fertilizer in this form.”

The spikes are fertilizer compressed into a stick with one end slightly pointed and a plastic cap on the other. “You take a box of spikes, a hammer and pound one spike into the ground for each inch of tree diameter. That’s all it takes. Last year, after we put in all those new trees, I sent a three man crew out to fertilize and they were done in a day and a half. Seven hundred trees. I couldn’t believe they’d done them all so fast, so I checked. They had,” said Boehm.

“You can see the difference it makes. There are some places on the edge of the course where similar trees were put in on the other side of the road. Ours are greener.”

What about time consuming close-trimming around trees? It’s been all but eliminated. “We use Casoron, a granular type product which completely kills all vegetation but doesn’t hurt the tree. You put it around in the winter, when the tree is dormant, using a little spreader of any type. In the spring we put wood chips around the trees so the dead grass won’t look unsightly. We also use this treatment around out-of-bounds markers and buildings. You can mow right around them with a rough mower. It eliminates about 90% of all hand mowing. You still have to do some, but you can’t imagine how much it saves.

“Of course any time you put out that many new trees, you’re going to have some problems. That man out there on a seven-gang mower has to learn where each of those trees is, and how to make his cut so he gets close enough, but misses the tree. Sometimes the man on the mower runs over a tree. When that happens, I send him back out with a can of tree paint, have him paint it up and stake it, and let him know he’d better not do it again. They learn fast. That’s another reason for big trees — because they’re easier to miss — or should be.”

Boehm doesn’t neglect turf care, of course. He has established regular programs of soil testing, so he can give each part of his course exactly what it needs, and aerification, to relieve the compaction caused by the muckey, clayey soil and the very heavy use of the course.

EDITORIAL (from page 6)

This simply means that segmented lobbying — such as being done now by each little group — will never be wholly satisfying in terms of favorable legislation and/or rulings by EPA, OSHA, USDA, etc.

For a time we had hopes that this could be accomplished via a “Green Industry Council” in which every organized group — associations, societies, foundations and whatever — might serve as a communications and lobbying medium whereby forces necessary to achieve needed action could be raised. Now, we are not so sure. There appears insufficient interest to develop the type of council body which could conceivably coordinate the efforts of the segmented Green Industry. Funding is a further problem. We as a magazine are open to suggestion.
25th Anniversary Planned
The Sprinkler Irrigation Association will celebrate its 25th anniversary during the annual convention to be held at the Contemporary Resort of Disney World in Lake Buena Vista, Fla., Oct. 27 to 30.
Convention activities are planned to portray the role that the Association has played in the growth of the sprinkler irrigation industry and to recognize those leaders in education, industry and government who have contributed to sprinkler irrigation progress and to the development of the Association.
Programs, registration information and room reservation forms for the convention can be obtained from the Sprinkler Irrigation Association, 13975 Connecticut Ave., Suite 310, Silver Spring, Md. 20906.

Biological Weed Control Proposed by Scientists
A new biological control for weeds, which would avoid the use of selective herbicides has been proposed by a Michigan State horticulturist and a Cornell University agronomist.

In the current issue of "Science," Alan R. Putnam and William B. Duke note the well-known phenomenon of allelopathy — that is, the ability of certain plants to inhibit the growth of other plants, such as weeds, by releasing chemicals toxic to other plants into the soil.
"If this allelopathy is an inherited trait, which is likely, attempts could be made to incorporate weed resistance into commercial crops in the same manner that insect and disease resistance were bred into plants," Putnam and Duke suggest.
Successful biological control of weeds has been limited to a few cases where insect predators have been introduced to reduce certain weeds. Plant scientists usually fight weeds by selecting strains for their ability to outgrow weeds, an advantage attributed to rapid growth.

American Garden Products Names New Vice President
American Garden Products, Inc., producer and distributor of horticulture products and related items, announced that Peter J. West has been appointed executive vice president and chief operating officer. West, formerly on American Garden's board of directors, succeeds C. A. Hellar.
The operations of American Garden Products, Inc. include Gurney Seed and Nursery, Cole Nursery, Horton Nurseries, Western Seed, Cal-Turf and Perry's Plants, Inc.

New Agrico Division Names Sinclair President
Kenneth R. Sinclair has been elected president of Agrico International, a new division of Agrico Chemical Company, a subsidiary of the Williams Companies. Agrico International is responsible for Agrico's overseas investments, marketing and a number of new overseas production facilities now in various stages of development.
Agrico International has overseas offices in Panama City, Paris, Milan, San Paulo and Tokyo.
Managers Guide To Equipment and Supplies
Alphabetical Listing of Suppliers

Making the right decision in selection of equipment and supplies is one of the most important jobs of a manager in the Green Industry. Besides being an important item on an investment budget, equipment must also be maintained. This calls for wide initial selection, correct accounting procedures for depreciation, effective preventive maintenance and proper major maintenance when needed.

Perhaps the most important step is in selection. It is with this in mind that WEEDS TREES and TURF presents this 1975 Green Industry Manager’s Guide to Equipment and Supplies.

The guide is in two parts. Manufacturers and their equipment and supplies are listed first. Advertisers are in bold face type. Product groupings and manufacturers of a particular item are listed second. Because manufacturers add and delete product lines, change names and generally never remain static, omissions of certain manufacturers or product lines are unavoidable. Your comments and suggestions are invited to help improve future editions.

A
AMF Western Tool Division, 3811 McDonald Ave., Des Moines, Iowa 50313
Mowers, rotary
Tractors, AMF 1281 and AMF 1293
Riding mowers, rotary

A.O.A. Research & Development, Inc. (P.O. Box 6081C) 608 Virginia Dr., Orlando, Fla. 32804
Underwater weed cutter, manually operated, spring steel, serrated, doubleaction blades cut weeds with forward and backward stroke

Ace Pump Corp., 1650 Channel Ave., Memphis, Tenn. 38113
Pumps, centrifugal
Pumps, nylon roller
Pumps, diaphragm

Acme Products, 1201 Kalamazoo Street, South Haven, Mich. 49090
Masks, Dust, Gas
Respirators

ADS—Advanced Drainage Systems, 1880 MacKenzie Dr., Columbus, Ohio 43220
Corrugated Plastic Drainage Tubing, sizes of tubing and fittings from 4 inches to 18 inches in diameter

Adventure Line Mfg. Co., 3333 Main St., Parsons, Kansas 67357
Astro Hook, crane/ladder, truck mtd., hydraulic
Highworker, platform lift, truck mtd., hydraulic
Tailgate, 1,000 lb. cap. pickup mtd. tailgate, all of our equipment is designed for use on pickup trucks

Aeroquip Corporation, 300 S. East Ave., Jackson, Michigan 49203
Hose and fittings, hydraulic, fuel, air, oil, water; pressure from low to super high

Agresults, Inc., 5501 S.W. 74 St., Miami, Florida 33143
Hydroflyer Umbrella-Kal Injection System, Airflyer Adapter for pressurized injection of pesticides, fertilizers or other chemicals into greens or tees

AgTronic Mfg. Co., 1560 State St., Barstow, Calif. 92311
Soil moisture meter

Air-Lec Industries, Inc., 3306 Commercial Ave., Madison, Wisconsin 53714
Air-Lec, aquatic weed cutter
Air-Lec, aquatic weed rake

Alcoa Aluminum Co. of America, Alcoa Building, Pittsburgh, Pa. 15219
Irrigation pipe

Allis-Chalmers, 1205 S. 70 Street, Milwaukee, Wisconsin 53211
Model 620 tractor, 19 ½ hp with tires rear 34.0”
Model 615 backhoe-loader, Allis-Chalmers 56 hp gasoline engine
Model 816 backhoe-loader, Perkins diesel engine 83 hp
Model 918 backhoe-loader, Allis-Chalmers diesel 84 hp engine
Mower (sickle bar), length 56” tractor (620) mounted Rear mtd. Roto-Tiller, 48” size for 620 tractor
Rotary mower, 48” swath for 620 tractor

Amchem Products, Inc. Brookside Avenue, Ambler, Pennsylvania 19002
Meter Miser, liquid spreader gives precision application of Weedone liquid herbicide products without the need for calibration
Directa-Spra, sprayer end unit

American Arborist Supplies, Concord Industrial Park, Concordville, Pa. 19331
Arborist supplies
Chippers, Chain Saws, Hand saws, Climbers Rope, Pruning Equipment, Hardware (screw rod, cable, thimbles)

Erosion Control Products
Soil Retention Products

American Hose & Reel Co., P.O. Box 639, Marland, Okla. 74644
Thermoplastic spray hose with working pressure of 250, 400 and 800 PSI; ¼, ½, ¾, 3/4-inch sizes
Fertilizer applicator tubing; ¼, ½, ¾, 3/4-inch sizes
Hose reels; small, 300 ft., ½-inch hose, 1000 P.W.P.; large, 300 ft., ¾-inch; adjustable drag

American Lincoln Corp., 518 S. St. Clair, Toledo, Ohio
Welders
One application early in the spring. That's all it takes. Dacthal preemergence herbicide prevents 20 annual weeds from sprouting all season long. Problem weeds like carpetweed, chickweed, purslane and others. So you can devote time and manpower to more important work.

Dacthal doesn't stop there. It also drives out troublesome crabgrass and Poa annua. Hit 'em in the spring. And follow through with Dacthal in late summer for control of Poa annua and other late-germinating weeds.

Over the years, Dacthal has proven to be the closest thing to worry-free weed control. It won't harm new grass when used as directed. Won't leach out with frequent waterings. And there's no problem of residue buildup in the soil.

Dacthal degrades, naturally, in one season. Just read and follow label directions. You can even use Dacthal to keep the weeds out of flowers and shrubs. It's cleared for use on over 120 ornamentals. That's one more beauty of it.

This year, drive out weeds with Dacthal... the all-around favorite preemergence herbicide. Available in wettable powder or granules. Ask your supplier for more information or write: Agricultural Chemicals Division, Diamond Shamrock Chemical Company, 1100 Superior Avenue, Cleveland OH 44114.
Respirators, protects against harmful, highly toxic sprays, dusts and vapors in inicides, fertilizers, etc.  
Eye protection goggles, protects against impact or dust & chemicals resulting from spraying, dusting, cutting, etc.  
Available with clear or sunglass lenses, plain or coated for anti-fogging.  
Hard caps and hats, head protection against falling limbs or branches — Meets Amer. Nat'l Std. Z89.1-1970  
Hearing protectors, protects hearing from damaging or irritating noises of tractors, sprayers, power saws, etc.

Ametek, Plymouth Products Division, 502 Indiana Ave., Sheboygan, Wisc. 53081  
Superflexon plastic boxes, plastic irrigation valve boxes with turf green covers  
Meter pits, plastic  
Amoco Chemicals Corp., Industrial Products Div., 1530 Commerce Dr., Stow, Ohio 44224  
Polyethylene pipe and fittings for irrigation  
PVC pipe and fittings for irrigation  
Corrigated plastic drainage tubing  
Styrene rubber plastic drain pipe and fittings  
Andrasko Engineering Co., P.O. Box 4633, Santa Barbara, Calif. 93103  
The Meter Matic, fertilizer injector for irrigation systems  
Aqua-Dial, P.O. Box 1325 Newport Beach, Calif. 92624  
Turf irrigation Equipment  
Automatic valves, hydraulic and electric, remote control  
Automatic controllers  
Sprinklers, gear driven, pop up, vandal resistant, lawn and garden  
Aquamarine Corp., Box 616, 1116 Adams, Waukesha, Wis. 53186  
The Aqua-Trio, 3-piece aquatic weed harvesting system (harvester, transport and shore conveyor)  
The Sawfish, an aquatic weed cutter and front end loader (for weed, trash and/or oil spill cleanup on water)  
Design and prototyping service for specialized equipment for unusual or extraordinary weed problems  
Aqua-Mech Co., 2609 Cedar Springs Rd., Dallas, Tex. 75201  
Aqua Mech, conversion kit from manual valve and key to automatic timed heads  
Arctic Mizer Mfrs., Inc., 2116 E. Norse Ave., Cudahy, Wis. 53110  
Arctic Mizer, spreader, self-powered; vacuum-thatcher, self-powered  
Ariens Company, 655 W. Ryan Street, Brillion, Wis. 54110  
Ariens Emperor, riding mower — 30” and 38” rotary; 8 hp  
Ariens Fairway, riding mower — 26” rotary; 5 and 7 hp  
Ariens S-8 Tractor, lawn tractor — 36” rotary; 8 hp  
Ariens Lawn Vac, lawn vacuum  
Ariens Trac-Team, 26” rotary mower, lawn vacuum, rotary broom on one 8 hp tractor  
Armor Metal Products, P.O. Box 822, Helena, Montana 59601  
Anderson Rock Picker, heavy-duty rock removal machine for use in seedbed preparation  
Asplundh Chipper Co., Div. Asplundh Tree Expert Co., Blair Mill Road, Willow Grove, Penna. 19090  
Chipper, high speed, tapered blade  
Forestry truck, Models L-40, 42, 45, 50; dump body, 12-inch chipper, aerial bucket  
Brush hooks  
Arps Corp., 1711 Wisconsin Ave., New Holstein, Wis. 53061  
Arps 728, backhoe, tractor-mounted  
Arps 730, backhoe, tractor-mounted  
Arps blades and rakes, landscaping rakes and utility blades  
Johnson “Work-Horse”, front-end loader, garden tractor-mounted  
Johnson “Terra-Comb”, combination thatcher and power-rake  
Arps mini-blades and rakes, blades and rakes for garden tractors

Aurora Pump, 800 Airport Rd., Aurora, Ill. 60542  
Aurora pumps, irrigation pumps centrifugal and turbine pumps  
Austen Products, Inc., 1000 Singleton, Dallas, Texas 75221  
Servis Saturn, 5 rotary mower; 6 rotary mower; 7 rotary mower  
Servis Cyclone, 60 rotary cutter; 72 rotary cutter  
Servis Flex, 15 rotary cutter  
Servis Gold Star, post hole digger  
Servis landscape rakes, box scrapers

Auto Hoe, Inc., S. 3rd St., De Pere, Wis. 54115  
Auto Hoe, power hoeing machine 3.4 & 5 (HP)  
Avco New Idea, Farm Equip. Div., 420 S. First St., Coldwater, Ohio 45828  
Sprinklers, gear driven, pop up, vandal resistant, lawn and garden  
Pumps, tractor-mounted  
Applicators, granular, insecticide-herbicide

B

B.A.G. Corporation, 9443 Sherwood Glen, P.O. Box 28403, Dallas, Texas 75228  
Taicon Container, plastic, collapsible, reusable shipping container for handling bulk shipments  
Super sack container, one-ton disposable container  
BMB Company, Inc., North Vermont at 9th, Holton, Kansas 66436  
Utility, 5’ tractor operated rotary mower  
Special, 6’ tractor operated rotary mower  
XL and Brute, 5’ and 6’ tractor operated rotary mower  
Fury, 7 tractor operated rotary mower  
Twin Brute 120 and 144, 10, and 12, tractor operated rotary mower  
Twin Fury 144 and 160, 12 and 13’4” tractor operated rotary mower  
Mighty Mower, 15, 18’ and 20’ flexible tractor operated rotary mower  
Suburban 48, 48’ trailing rotary mower w/ 8 hp gas engine  
BMB Flail Mowers, 72”, 90”, 144” and 180” tractor operated  
Buchhold Bros. Inc., 619 N. Center St. Forrest, Illinois 61741  
Rotary mower 8 hp.  
Tuff-Bees “30”, Rotary mower rider 8 hp.  
Badger Dynamics, Inc., P.O. Box 305, 1221 S. Park St., Port Washington, Wisconsin 53074  
“Bucky” Forklift, outdoor forklift 2500 lb. capacity  
Models 6035/6045, Towable rough terrain forklift 6000 lb. capacity  
Baker Equipment Mfg. Co., 1710 High Point Ave., Richmond, Va. 23230  
Aerial towers, mobile equipment  
Derricks, mobile equipment  
Saws, tree, combination pruner and saw
Saw, pruning, hand
Saw sheaths
Tree bracing materials
Belts, safety
Tree paints
Trimmer, tree (hydraulic & pneumatic)
Shears, lopping (two hand)
Pruners, (long pole) fiberglass
Saws, (long pole) fiberglass
Rope, climbing

Bar-Way Mfg. Co., P.O. Box 640, Stamford, Conn., 06904
Spray guns, long-range, worm-gear control on end of barrel
Swivel adapters
Invigorator guns — liquid fertilizers
Suction refills, strippers
Couplings

Beatty Trailers, Box 1027, Burlington, N.C., 27215
Beatty Trailers, self-contained, hydraulic dump; capacities 2, 3, 5, 9, 13 yard; transport trailers, 6 to 30,000 lb. capacity; tag-a-long and goose neck

Beck Manufacturing Company, P.O. Box 752, Auburn, Alabama 36830
Lawn-O-Matic, turf grass planter, plugger — spriger
Sod-O-Matic sod cutter, sod cutter cuts 3 16" strips at one time
Sod-O-Matic sod harvester, Beck’s big roll — sod harvesting and laying system

Beeco Products Co., Industrial Park, Fort Washington, Pa. 19034
Beecomist, spray head for LV and ULV agricultural and insecticide spraying for aerial or ground equipment, rotary type, 12V DC or 24V DC, three models

Bell Helicopter Co., P.O. Box 482, Fort Worth, Texas Helicopters

Bemis Company, Inc., 800 Northstar Center, Box 215, Minneapolis, Minn. 55402
Bags and liners, plastic
Bags, tree baling, litter, grass catcher
Twine, tying

Wm. Bergman Co., 1335 M-15, Reese, Mich. 48757
Service, stone picking, seeding, land preparation

Berkeley Pump Co., 829 Bancroft Way, Berkeley, Calif. 94710
Pumps, electric and gasoline; irrigation, one to forty hp, higher hp available, centrifugal and turbine

Bermuda King, Inc., Rte. 1, Oakrache, Okla. 73762
Sprig harvesters, 20", 28", 42", 30 to 60 hp, 500 to 1,000 watt an hour rating
Sprig planters, 1, 2, 3 and 4-row, large capacity
Fairway sprrigers, 2 to 10' width, large capacity

Stubbies, nozzles, mini-sized, three cone angles, flow rates from 3 to 300 gpm
Spray nozzles
Spray applicators
Fog spray nozzles

Big Brute Turf Cut, Div. of Finney Frocks, 18035 Georgia Ave., Olney, Md. 20832
Big Brute turf cutter, sodcutter

Billy Goat, P.O. Box 229, Grandview, Mo. 64030
Billy Goat, suction sweeper
Windrow leaf blowers Shred-N-Bag, shredder
Chipit, chippers, vacuums

Black & Decker 701 E. Joppa Road, Towson, Md. 21204
Lawn mowers, electric rotary
Grass shears, battery powered (re-chargeable)
Hedge trimmers, 13" to 22" Black Knight—both electric and battery
Lawn edgers, electric
Patio vacs, 5 and 10 gallon dry and 8 gallon wet/dry
Garden hose connectors, complete line of hose fittings

John Blue Co., P.O. Box 1607, Huntsville, Ala. 35087
Spreaders, fertilizers (liquid, dry, bulk)
Tanks, spray and fertilizer
Sprayers, mounted and pull type, rights-of-way
G-1000 tractor (16 h.p.) rear engine, agricultural type. Attachments include rotary mower, cultivator, harrows, etc.
L-900 Metering Pump, injection of liquid fertilizer for irrigation systems
Cotton Module Maker, 24' and 32'
Cotton Module Trailers, straight tongue or gooseneck, 24' and 32'

Bluebird, lawn combers, A/K/A thatchers, dethatchers, lawn rakes, renovators and vertical mowers, 4 hp, 5 hp, 7 hp
Bluebird “1500”, engine hoists, knockdown type
Bluebird “3000”, engine hoists, towable type
Bluebird “Yardbird”, utility crane
Bluebird engine stands
Bluebird “F .20B”, lawn combber, compact type, 5 hp

Bombardier limited Valcourt, Quebec, Canada
Muskeg brush cutter, tracked vehicle (90 hp) equipped with front-mounted hydraulic rotary brush cutter
Muskeg carrier, tracked vehicle (90 hp) with spraying equipment

Boss Irrigation, P.O. Box 191, San Angelo, Texas 76901
Irrigation sprinkler

Bowie Industries Inc., P.O. Box 931, Bowie, Texas 76230
Hydro mulcher—used in spraying, seeding, mulching, fertilizing, insect control and weed control 350, 500, 800, 1,000, 1,500, 2,500 and 3,000 gallon tanks. Trailer or skid-mounted
Agri-sprayer, multi-purpose low volume 400 gallon sprayer, fiberglass tank trailer-mounted, remote hydraulic operation. P.T.O.

Bridgeport Implement Works, Inc., P.O. Box 491 WT, 60 Rachel Drive, Stratford, Conn. 06697
Pixtone, trailer-type—self-powered, picks stone ¾ to 9-inch diameter

Briggs & Stratton Corp., P.O. Box 702, Milwaukee, Wis. 53202
Engines, 4-cycle, single cylinder, gasoline

Brighton By-Products Co., Inc., P.O. Box 23, New Brighton, Pa. 15066
Weed Chek, fiberglass landscape mat
Triton, planters & benches, fiberglass
Bridgestone, high pressure spray hose

Brillon Iron Works, 200 Park Ave., Brillion Wis. 54110
Mow-Safe, safety flail mowers (72" and 88")
Swing-Cut, rotary mower (60" and 72")
Turf-Maker, seeder for sod-growers
Sure-stand, landscape and agricultural seeders
Versa-Scaper, landscape rakes

Versa-Mower, 180° rotary cutters

Brinly Hardy Co., Inc., P.O. Box 1116, Louisville, Ky. 40201
Brinly attachments, gardening and landscape equipment for tractors equipped with sleeve type hitch
Brinly implements, gardening and landscape equipment for tractors equipped with Cat. “O” 3-pt. hitch
Brinly lawn maintenance equipment, pull behind equipment such as roller, aerators, broadcast spreaders

Brouwer Turf Equipment Limited R.R. No. 1, Keswick, Ontario, Canada
Sod harvester, attached to a 35-40 hp farm tractor
Frate Lift, 3-wheeled, self loading forklift

The Broihill Company, No. Mkt. Sq., Dakota City, Nebr. 68731
Sprayer, skid-mounted, mechanical agitation
Sprayers, trailer mounted, mechanical agitation
Sprayer parts: pumps, hose, tanks, trailers, nozzles, hand guns, spring boom
Buckner/Johns Manville Irrigation, Greenwood Plaza, Denver, Col. 80217
  Full line irrigation, automatic electric controllers, impulse sprinklers, valve-in-head sprinklers, quick couplers, pop-up sprinklers, hydraulic controllers, valves
Buffalo Turbine Ag. Equipment Co., Industrial Place, Gowanda, N.Y. 14070
  Sprayer, mist blower, ULV hand carried, sonic ULV, mist blower, turntable
  Sprayer-duster, mist duster, combination
  Duster, dust only
  Sprayer-duster, back pack, power take-off
Bunton Co., 4304 Poplar Level Rd., Louisville, Ky. 40213
  Mowers, rotary
  Lawn and turf equipment
C
E. L. Caldwell & Sons, Inc., 3204 Agnes St., P.O. Box 9316, Corpus Christi, Tex. 78408
  Interstate, rotary mower, 15 ft.
  Challenger, rotary mower
  Manta Ray Interstate, rotary mower, 10 ft.
  Brush Beaver, rotary mower, 5 ft. or 6 ft.
  Manta Ray Jr., rotary mower, 16 ft.
  Contur Flail, heavy-duty, flexible flail, 15 ft., 3 sections
  Shark-go, flail-type spreader, 90 inches
  Barracuda, lift-type flail mower, 72-inch
CareTree Systems, 7030 Huntley Rd., Worthington, Ohio 43085
  CareTree transplanter, tree transplanter for installation
  Cascade Corporation, P.O. Box 25240, Portland, Oregon 97225
  Cascade Knuckleboom, truck mounted hydraulic crane that stows in less than 2' of bed space. Capacities to 9,650 pounds at 5'
J J Case, Outdoor Power Equipment Division, Winneconne, Wisconsin 54986
  Snow Blowers, J81 (32") J80 (38") J84 (48")
  Compact Tractors, 108 (8 hp) 118 (8 hp) 210 (10 hp) 220 (10 hp) 222 (12 hp) 224 (14 hp) 444 (14 hp) 446 (16.5 hp)
  Loader Tractors, 644 (14 hp) 646 (16.5 hp)
  Rotary Mowers, J41 (34") J40 (38") J44 (44") J46 (48")
  Dump Carts
  Utility Blades, G51 (38") H50 (44") H54 (54")
  Rotary Tillers, H70 (41") J72 (32")
Century Engineering Corporation, 221—4th Ave. S. E., Cedar Rapids, Iowa 52401
  Sprayers, trailer, tractor, jet or mechanical agitation
  Washers, high pressure
  Heaters, portable oil and gas
Certain-Teed/Daymond Co., 230 Collingwood, Suite 150, Ann Arbor, Mich. 48103
  Certa-Flex, corrugated plastic tubings of various diameters for land drainage and trickle — irrigation
Certain-Teed Products Corp., P.O. Box 860, Valley Forge, Pa. 19482
  Fluid-Tite™ double gasket asbestos-cement and PVC pipe, irrigation; fittings, irrigation pipe.
  Champion Brass Mfg., 1460 N. Naud St., Los Angeles, Calif. 90012
  Champion 466, 466P, anti syphon valves
  Champion 17, 18, 19, lawn sprinklers, flush, popup, shrub
  Champion E.A., C.E.A., electric adapters
  The Champion Company, 400 Harrison St., Springfield, Ohio 45501
  Doo-All Roll-Dump Trailer, 1 and 2 cu. yd. hopper capacities
  Doo-All End-Dump Trailer, 3 cu. yd. hopper, hydraulic dump
R. E. Chapin Mfg. Works, Inc., 29 Liberty St., Batavia, New York 14020
  Dusters, flamethrowers, sprayers
Charles Machine Works, Inc., Ditch Witch Division, P.O. Box 66, Perry, Okla. 73077
  Ditch Witch trenchers, 7 hp to 195 hp, vibratory plows, backhoes, trenched mounted trailers, horizontal boring units
  Clarke Div., Clarke-Gravely Corp., 1849/75 Estes Street, Muskegon, Michigan 49441
  Litter Vac, indoor/outdoor vacuum for picking up large debris from grounds (5 hp Tecumseh engine)
  Space Sweeper, Models T-71-2-3 power sweeper (gas, elec., battery)
  Airlift, sweeper (the Clarke revolutionary regenerative air principle)
Clark Equipment Trailer Division, P.O. Box 410, Michigan City, Indiana 46360
  Clark Equipment mini trailers, a 22 dual axle and 30 ft. tri-axle flatbed trailers designed for use with 5th wheel connecting pick up trucks.
  Clinton Engines Corporation, Clark & Maple Streets, Maquoketa, Iowa 52060
  Engines, gasoline
Club Car, Inc., A Johns-Manville Company, P.O. Box 1625, Augusta, Georgia 30903
  Caroche, four-wheel electric golf car (2 passengers)
  Caroche Utility Truck, four-wheel utility truck (2 passenger and 500 lb. load)
  Caroche Personnel Carrier, Four-wheel electric (4 passengers)
  Caroche Islander, combination commuter & golf car
Conaway, Inc., P.O. Box 303, Lawrence, Pa. 15055
  Chain saws, portable generators, gasoline hedge trimmer, portable brush cutter, lawn and garden tractors, 7 to 16 hp, riding mowers, lawn mowers 2 and 4 cycle, lawn and garden tractors 8-16 hp, composters, garden tillers, riding mowers 5-8 hp, vacuum blowers, grounds keeper, high wheel rotaries
  Container Development Corp., 424 Montgomery St., Water-town, Wisconsin 53094
  Golf course equipment
  Lewis line, ball washers, flag poles, tee markers, cups, cup cutters, flags, rakes, etc.
  Contree Sales, Inc., P.O. Box 129, Columbus, Wis. 53925
  Rice Paddy Daddy, sprayer
  Boom Dye-Marker, marks areas treated
Certa-Flex, corrugated plastic tubings of various diameters for land drainage and trickle — irrigation

WEEDS TREES and TURF
Wat Sol Oil, lubrication, preservative, storage oil<br>Auger. Model S.S., 4-inch, 12 volt for materials handling

Conwed Corporation, 332 Minnesota St., St. Paul, Minn. 55101
Conwed Hydro Mulch®, a wood fiber mulch used in hydro seeding
Conwed Economy Erosion Control Netting, tough plastic net used over loose mulches in high erosion areas

Cooper Mfg. Co., 422 S. First Ave., Marshalltown, Iowa 50158
Edgers, gasoline powered
Mowers, reel, walking Champion 21, greensmower

Corona Clipper Co., 14200 E. 6th, Corona, Calif. 91720
Tree and ornamental care and pruning equipment
Grass shears, anvil pruners, hand pruners, lopping shears, pole pruners, pole saws, hand saws & pruning paint

Correct Mfg., Hughes Keenan Div., P.O. Box 689, Delaware, Ohio 43015
Sky-Worker, aerial bucket—reaches up to 71 ft., horizontal to 45 ft.

Coursigns, Inc., 6500 N. Clark St., Chicago, Ill. 60626
High impact plastic stakes and golf course signs, cart directional. Large signs such as: "course closed," "tee closed" etc.
3/16" Poly rope 1M & 2M ft. spools
Sand trap rakes, combines steel head & plastic teeth
Plastic chain & ground posts
Tee caddy, container for tees, matches, scorecards

Howard S. Crane, Inc., P.O. Box 88, Oneida, New York 13421
Quick Test Moisture Tester, instrument to test grain
Aqua Probe Sub Soil Moisture Meter, instrument to test soil

Creative Sales, Inc., 200 South Main St., Fremont, Nebraska 68025
Tree systems—medicaps, systemic tree trunk injection

Cresline Plastic Pipe Co., Inc., 955 Diamond Ave., Evansville, Ind. 47717
Cresline, PVC pipe and fittings
Cresline Polyethylene pipe and tubing
Cresline polybutylene pipe and tubing

Curtis Dyna Products Corporation, P.O. Box 297, Westfield, Indiana 46074
Dyna Fogger, thermal fogger BP-145, backpack sprayer, duster

Cushman, OMC-Lincoln, 1401 Cushman Drive, Lincoln, Nebraska 68512
Cushman turf care system, 12 hp and 18 hp gasoline vehicles for turf care

Cyclone Seeder Co., Inc., Urbana, Ind. 46990
Seeders

Dadco, P.O. Box 2086, Fresno, Calif. 93719
Dadco, battery clamps, guaranteed never to corrode. Supplies more power from battery to cable. Easy installation or removal. Available pre-molded on 2 & 4 gauge cable to 72".

Ross Daniels, Inc., P.O. Box 430, 1720 Fuller Road, West Des Moines, Iowa 50265
Ross Root Feeder, to feed as you water to the roots of trees and shrubs

Davey Tree Expert Co., Kent, Ohio 44240
Tree nursery, 150 varieties of shade and ornamentals

Tree service, nationwide and Canadian representation

Davis Mfg., Div. J. I. Case Co., 1500 S. McLean Blvd., Wichita, Kansas 67213
Fleetline®, rubber tire trenchers, 7-55 hp
Task Force®, track mounted trenchers
Road Runn®, trencher 57 hp with backhoe attachment
Boring and reaming attachments for trenchers. Also direct borial equipment
Mini-Sneaker®, 25 hp vibratory plow
Scatback®, 30 hp 4-wheel drive articulated loader

Deere and Co., John Deere Equipment, John Deere Administrative Center, John Deere Rd., Moline, Ill. 61265
JD 350B & JD 450C, crawler; 42 and 65 hp; loader bulldozer blades and log fork available
JD 760A & JD 860A, elevating scraper; 9.5 and 15 cu. yd.
JD 380 & JD 480B, forklifts; 4000-5000 lb. lift and 5000-6000 lb. lift
Mowers, rotary, flail; push, riding, self-propelled; side mounted cutter bar available
JD 24, JD 70 & JD 170, skid steer loader; 25 and 37 hp
JD 820, grounds maintenance tractor, 31 hp; belly mounted mower, cuts 6 ft. swath.
Tools, 237 different tools for shop, work and home
Roto Tillers
Lawn Sweepers
Blades
Snow Throwers
Chain Saws
Dico, Knuckle boom for sod loading & transporting
For wood, brush, trash
Log loaders. Trolley boom hoists
Traveling boom & cranes
Wheels and brakes

Digz-All Trencher Co., Div. Wing King Co., Merrill, Iowa 51038
Digz-All, trenchers

DriAll, Inc., P.O. Box 309, Attica, Ind. 47918
Air Curtain Destructor, pit incinerator for disposal of trees and wood products—air pollution approved
Scarifier Leveler, leveling device with scarifying teeth for landscapers, sod growers
Yard Leveler, leveling or grading drag

Dunlop Tire & Rubber Corp., Box 1109, Buffalo, N.Y. 14240
Dunlop tires, for cars and trucks, tractors and implements

ESB Brands, Inc., Willard, Exide, Box 6949, Cleveland, Ohio 44101
Willard and Exide batteries, 6-volt electric golf car and golf utility vehicle batteries. Lead acid storage batteries for lawn and garden tractors
ESB Battery Chargers
E-Z Go Car, Division of Textron, Inc., P.O. Box 388, Augusta, Ga. 30904
E-Z Go Golf Car, X-440 electric 3-wheel, GX-444 gas 3-wheel, X-444 electric 4-wheel, GX-444 gas 4-wheel
GT-7 gas turf vehicle
E-Z Rake, Inc., 1001 S. Ransdell Road, Lebanon, Indiana 46052
E-Z Rake, Spring Time Thatchers and power rakes, lawn vacuums that attach to garden tractors and riding mowers
Eagle Mfg. Co., 24th & Charles St., Wellsburg, W. Va. 26070
Eagle manufactures a complete line of oils, safety cans, oily waste cans, lab cans, oil and gasoline containers and safety storage cabinets
Echo Chain Saw Div., Kioritz Corp. of America, 350 Wainwright Ave., Northbrook, Ill. 60062
Echo Chain Saws, full range of chain saws from CS302, 30cc unit to CS100, 100cc unit
Echo Power Blowers, compact, lightweight knapsack type blower, 40 cc engine
Echo Duster/Mist Blower, compact, light weight knapsack type blower, 40cc engine
Echo Swing Scythe, lightweight, shoulder type, 20cc engine
Economy Tractor, 1005 Anoka Ave., Waukesha, Wis. 53186
Mowers, rotary, tractors (13-20 hp)
Engineering Products Co., P.O. Box 284, Waukesha, Wis. 53186
Economy, man-size all-gear tractor, 14 hp
Mower, rotary, mounted under tractor, 60 inches
Edwards Manufacturing Company, P.O. Box 1275, Ponca City, Oklahoma 74601
Edwards Sprayers, power sprayers, 50, 100, 200, 300, 400, 500, 1,000 gallons; 3 to 50 hp engines
Rue R. Elston Co., Inc., 815 E. 79th St., Minneapolis, Minn. Gopher Getter Jr., injection equipment
Energy Mfg. Co., Inc., 100 N. Main, Monticello, Iowa 52210
Hoists, pick-up
Hoists, truck
Hoists, bolster wagon
Hydraulic cylinders, valves, pumps, motors, reservoirs, gauges, couplers, filters, cylinder breathers
Erickson Corp., 211 St. Anthony Blvd., N.E., Minneapolis, Minn. 55418
Erickson, hydrostatic drive compact front end loaders
Erie Go Mfg. Inc., 1432 Tiffin Avenue, Sandusky, Ohio 44870
500 Ken Roll, ½ ton, hydrostatic, recoil start, manual steering
3000 Ken Turf Roll, 48" wide, hydraulic drive, manual start (electric start optional)
Eversman Mfg. Co., Curtis at Fifth St., Denver, Colo. 80204
Eversman, land leveler
Red Ewald, Inc., P.O. Box 1167, Karnes City, Texas 78118
50-gallon spray rig, the basic unit is 50-gallon fiberglass tank, skid, 5 hp engine, 6 roller pump, 25' hose and handgun, plumbing and regulator
Excel Industries, Inc., P.O. Box 385, Hesston, Kansas 67062
Hustler, mower, rotary Model 272, 18 hp, dual hydrostatic transmission, 72-inch cut, winter attachments available
Hillside Hustler, mower, rotary, 24 hp, dual hydrostatic, Model 360, self-leveling for maximum safety and performance on hillsides and level ground; 60-inch flail, too

F

FMC Corp., Agricultural Machinery Div., 5601 E. Highland, Jonesboro Ar. 72401
Bean Sprayers, hydraulic, all-purpose, pull-type
Bean sprayers, hydraulic high pressure, mist blowers, skid mount, trailer mount, complete line of booms, accessories, components. Rotary and Flail tractor mounted mowers, tillers
Mistblowers, truck mounted, nozzle parts

FMC Corporation, Sweeper Division, 1201 E. Lexington St., Pomona, Calif. 91766
Wayne Stump cutter and Wayne Brush Chipper

FMC Corporation, Outdoor Power Equipment Div., 215 South Park Street, Port Washington, Wis. 53074
HT-20, tractor, garden, hydrostatic, twin cylinder, 19.5 hp 54-inch rotary mower, 48-inch two-stage snow thrower, 42" single stage snowthrower, 54" blade, 33" tiller expandable to cover wheel widths
QT-16, tractor, garden, hydrostatic drive, twin cylinder 16 hp, 48-inch rotary mower, 42" single stage snowthrower, 54" blade, 33" tiller expandable to cover wheel widths
QS-16, tractor, garden, hydrostatic drive, 48-inch rotary mower, 16 hp, 42" single stage snowthrower, 54" blade, 33" tiller expandable to cover wheel widths, 16 hp single cylinder engine
H-14, tractor, garden, hydrostatic drive, 14 hp 42-inch rotary mower, 38" single stage snowthrower, 42" blade, 33" tiller expandable to cover wheel widths
G-14, tractor, garden, 14 hp, 42-inch rotary mower, 38" single stage snowthrower, 42" blade, 33" tiller expandable to cover wheel widths
G-10, tractor, garden, 10 hp, 38-inch rotary mower, 38" single stage snowthrower, 42" blade, 33" or 22" tiller
G-8, tractor, lawn, 8 hp, 32-inch rotary mower, 32" single stage snowthrower, 42" blade 828, 829, mower, riding, 8 hp, electric and recoil start, 28-inch rotary
Mowers, mulching type, rotary, two 22-inch self-propelled, 22-inch and 18-inch, hand propelled, mulching type, rotary, 3 special application units, 22" push, 2 18" push
Mulcher Baggers, two models, 6 hp and 3.5 hp, both equipped with safety interlocks and leaf ramp option
Tillers, horizontal shaft, 5 hp; vertical shaft, 3.5 hp
Attachments to fit tractors

FMC Side-Winder, P.O. Box 818, Minden, Louisiana 71055
Side-winder rotary cutters, tractor drawn rotary cutters, lift and pull models, 4 ft. to 16 ft.
Side-winder flail mowers, tractor drawn flail mowers, 6 ft. and 7 ft. models
Fairmont Hydraulics, 332 S. Michigan (Suite 1818), Chicago, Ill. 60604
The Powerfuls, drills (hydraulic powered), pruners (hydraulic powered), saws (chain-hydraulic powered), saws (circular-hydraulic powered)

Fanno Saw Works, Box 628, Chico, Calif. 95926
Saws, pruning, manual

Fayette Division, Dayton-Walther Corporation, P.O. Box 8, Fayette, Ohio 43521
Haulette by Fayette, trailers, utility and light to medium heavy industrial

Ferrari Tractor, 6104 Avenida Encinas, Carlsbad Ca. 92008
Ferrari 4WD Tractor; 30 & 45 hp 4WD mowing tractors
Maschio Rototillers, Commercial 40", 50", 60" & 90" rototillers for all 3 point hitch, catagory I trailers
Ferrari Walkbehind rototillers, 7.5 hp & 14 hp diesel rototillers
Ferrari Lawn & Garden tractors and sprayers, 7.5 hp & 14 hp diesel power head tractors for mowing, snow blowing, "spraying", also has riding trailer
Ferrari Snow Plow, 7.5 hp & 14 hp diesel snow blower
We’ve been talking a lot lately about the Ditch Witch Modularmatic concept and what it means to the underground construction industry. The Modularmatic series does provide a tremendous range of job functions; all designed and developed around the basic soundness of design and historic success of the Ditch Witch trencher series. We’re mighty proud of it and what it offers, but we realize there are times when the many capabilities of the Modularmatics are not needed. That’s why we manufacture our standard line of trenchers.

DON’T FORGET OUR TRENCHERS!

Ditch Witch designed and built the world’s first service-line trencher more than 20 years ago. We’ve continued to build the world’s best trenchers ever since. If your job requirements are strictly trenching, there’s a model in the Ditch Witch trencher series that suits your needs exactly.

For example, we offer two economical handlebar models, the C and M. Both are self-propelled with power plants ranging from 7- to 12½ horsepower.

If you need a four-wheel-drive machine with full hydraulic control, including power steering, we have the 18-horsepower J20 and 30-horsepower V30.

Should you need a larger trencher, one of our Modularmatic models, equipped as a trencher, gives you the best machine in its class — plus the option of adding other capabilities later.

Whatever your underground construction needs, look first to Ditch Witch and “Don’t forget our trenchers!”
Ferti-Feeder, 3973 Eastlay, Des Moines, Iowa 50306  
Ferti-Feeder, tree deep root fertilizer injector

Fibre Glass Products, Box 147, Swannanoa, N. C. 28778  
Tool boxes—pickup truck, Fibre Glass construction, paddle locks, built to accommodate B & G sprayer, fits all size trucks  
Chemical tanks—pickup truck, 55, 110, 180 gallons, Fibre Glass construction, with agitator, drain, and hose connections

Fimco, Inc., 1st & Court Streets, Sioux City, Iowa 51101  
Big Butch, pressure washer, electric, portable  
Dobbins, sprayer, lawn and garden, gas, mechanical agitation; sprayer, orchard and golf course, gas, mechanical agitation

Finn Equipment Company, 2525 Duck Creek Rd., Cincinnati, Ohio 45227  
Finn mulch spreader, straw spreader  
Finn Hydroseeder, seed and fertilizer spreader

Flymo, P.O. Box 939, Elkhart, Ind. 46514  
Flymo, air-cushion rotary mower

Foamspray Chemicals, Inc., 2623 Perth St., P.O. Box 20183, Dallas, Texas 75220  
Foamspray® sprayer nozzles, aerial and ground boom, handgun, and orchard sprayer nozzles for Foamspray® drift reduction systems (five nozzle types cover air, ground, orchard and roadside)

Foley Mfg. Co., 3300 Fifth St. N.E., Minneapolis, Minn. 55418  
Reel Grinder, sharpens, reel type, lawnmowers  
Bed knife grinder, sharpener, reeltype, lawn mower bed knives  
Lapping machine, Back laps reel type lawnmowers  
Chain saw grinder, sharpen saw chains

Ford Motor Co., Tractor & Implement Operations (N.A.), 2500 E. Maple, Troy, Mich. 48084  
Ford LCG Tractors, 37 to 63 hp  
Ford all-purpose tractors, 23 to 131 hp  
Ford flail mowers, 62, 74 and 88-inch widths  
Ford rotary cutters, 60, 72, 84 and 100-inch widths  
Ford sickle bar mowers, 5, 6 or 7 ft. widths

Fore-Par, Inc., 7150 Fenwick Lane, Suite 106, Westminster, Calif. 92683  
Fore-Par, tee markers, practice green markers, direction and rules signs, flags, greens, personalized, flags, greens, regulation, tee monuments

Fox Valley Marking Systems, 31W300 West Bartlett Rd., Bartlett, Ill. 60103  
Easy Marker, aerosol paint cane type object to aide in layouts for landscapers, contractors, etc.

Friend Mfg. Corp., 4441 Prospect St., Gasport, N.Y. 14067  
Tractor (hp); mower (reel, sickle, rotary, flail); saw (gas, hydraulic, electric, chain, circular); sprayer (type of agitation); irrigation (type of head, etc.)  
Friend Airmaster, air blast applicator  
Friend Orchardkraft, alternators, power brushcutter  
Friend Commander, chemical applicators, granular, chemical  
Champion and Chapin, chemical applicators, dusters  
Friend Orchardkraft, generators, hose, hydraulic and air-powered tools  
Friend Parkkraft, litter bags  
Willson, dust masks  
Friend, mistblowers, nozzle parts  
Uniroyal, protective clothing  
Friend Orchardkraft, pruners  
Friend, pumps  
Hannay, reels, hose  
Willson, respirators, safety equipment  
New Draulics, saws, chain, hydraulic and pruners, hydraulic  
Seymour Smith, saws, manual  
Friend Orchardkraft, power saws, shears  
Friend, spray booms, spray guns, spray nozzles, complete, disk whirls  
Friend, spray pumps, sprayer, bifluid, boom  
Friend Orchardkraft, sprayers, cart or wheelbarrow type, hand, knapsack  
Friend, spray tanks, sprayers, hose end, complete power unit sprayers

Fuenf Can Co., 143 W. 84th St., Chicago, Ill. 60625  
Gasoline cans to meet OSHA specifications

Fuerst Brothers, Inc., P.O. Box 271, Rhinebeck, New York 12572  
Fuerst F-l-e-x-i-b-l-e tine harrows, turf maintenance equipment for seedbed preparations, scarifying, over-seeding preparation, golf course construction, general turf area and bridle path maintenance

G

G. E. M. Products Inc., Box 845, Carol Stream, Ill. 60187  
Snow Co “Power Kart”, 3 wheel truck 8 hp  
Snow Co “Farm Skat”, all terrain vehicle 8 hp

Uni-Lift, motorized all-position stand for riding mowers, lifts up to 80 inches, 1,000 lb. loads, in less than 30 sec.

Game Time, Inc., The Toro Company, 903 Anderson Rd., Litchfield, Michigan 49252  
Park and playground equipment, half-way houses for golf courses

Gandy Company, 528 Gandrud Road, Owatonna, Minnesota 55060  
Gandy Turf Tender, for fertilizer, seed or granular chemical; 24 or 42-inch width  
Gandy spreader 600 Series, for fertilizer, seed or granular chemical; 3, 4, or 5-foot width  
Gandy Spreader 10A Series, for fertilizer, seed or granular chemical; 3, 4, or 5-foot width, pull-type and tractor mounted  
Gandy Spreader 1020A, for fertilizer, seed or granular chemical; 20 foot; folding  
Gandy disk mount, granular applicator; 3 to 20 foot, hydraulic or mechanical drive  
Gandy Ro-Hi, high clearance granular applicator; 5 to 28-inch band  
Gandy Line Tender, granular applicator; 1 to 21-inch band, handle control  
Gandy Super/Junior, Granular applicator; 1 to 21-inch band, implement-mounted  
Gandy Measuring Wheel, one-man land measuring in feet or meters

Garber Seeders, Inc., St. Paris, Ohio 45363  
Seeders, mounted and pull type

General Electric Co., Outdoor Power Equipment Operation, Corporations Park, Bldg. 702, Schneckady, N.Y. 12345  
Tractors, electric/battery-powered, full line of attachments

Aprons  
Gloves
Ordinary slow release nitrogens just can't seem to control themselves. In fact, their behavior is as fickle as the weather. Typical urea-formaldehyde nitrogens release very fast in hot weather and almost not at all in cold weather. They have very little self-control.

IBDU is a unique slow release nitrogen source. Its release rate is primarily dependent upon normal soil moisture and its own particle size. And that means that IBDU gives the best feeding control. IBDU's release rate and availability won't drastically change when the weather or soil bacterial activity change.

By using IBDU, you can regulate your turf's response, because the rate at which your turf is fed is more closely controlled.

Now that you know you can control your turf's response more closely by using IBDU, and that only Par Ex contains IBDU, it makes a lot of sense to buy only Par Ex products. That's using self-control.
First aid kits
Aerosol burn spray

Giant-Vac Mfg., Inc., Machine Shop Road, South Windham, Conn. 06266
Giant-Vac, heavy-duty commercial vacuums
Giant-Blo, heavy-duty commercial blowers
Giant-Truck Loader, heavy-duty truck loaders, front or trailer mount from 12 through 68 horsepower
Giant-Thatcher, 5 and 7 hp—thatching machines

Ginther Equipment Corp., P.O. Box 311, Arcadia, Ca. 91006
Du-wiper, dew remover for greens
Clipping spreader, patented spreader-recycles grass clippings from green or tees
Turf drag, steel drag, breaks up grass or dirt lumps on fairways
Control stakes, steel stakes, types T & CP, with our golf course guide rope, controls flow of traffic
OB stakes, steel out of bounds stakes for controlling traffic
Golf course guide rope, plastics rope, ¼” hollow grated for use with our stakes in controlling traffic
Bag supports, for supporting golfers bags & clubs at driving ranges on earth or asphalt
Custom signs, signs, steel, with customized messages
Mity hyd. dump trucks and trailers, utility and personnel trucks, 5000 lbs. capacity with low ground pressure

Glendale Optical Co., Inc., 130 Crossways Dr., Woodbury, L. I., N.Y. 11797

Goodall Div., 1405 Bunton Rd., Louisville, Ky. 40213
Goodall, mower, rotary
Goodall lawn-turf equipment

Goodall, Inc., 2660 N. Clybourn, Chicago, Ill. 60614
Rise cones, winter protection for roses (foam plastic)

Granberg Industries, Inc., 200 So. Garrard, Richmond, California 94804
Clip-N-Trim, chainsaw pruning and hedge clipping attachment
Grind-R-Guide, electric grinder for saw chains
Break-N-Mend, hand-tool for repairing saw chain
Alaskan Mill, lumber making saw attachment
Mini-Mill, lumber making chain saw attachment
File-N-Grade, chain sharpening device
File-N-Joint, chain sharpening device

Grass Growers, Inc., P.O. Box 584, Plainfield, New Jersey 07061
Terra Tack, for erosion control, straw / hay tack and mulch binder

Gravely, Division Clarke-Gravely Corp., One Gravely Lane, Clemmons, N.C. 27012
816 4-wheel tractor, 8-spd. trans., 16 hp, Onan 2-cylinder engine (rear mounted)
812 4-wheel tractor, 8-spd. trans., 12 hp Kohler single cylinder engine (rear mounted)
810 4-wheel tractor, 8-spd. trans., 10 hp Kohler single cylinder engine (rear mounted)
408 lawn tractor, 34-inch rotary mower—8 hp Kohler engine
7.6 hp custom 2-wheel tractor, 30” rotary mower, 40” rotary mower, 50” rotary mower
7.6 hp 2-wheel tractor, rotary tiller, rotary plow, rotary cultivator
C-10 hp commercial 2-wheel tractor, 44”, 38”, 36” snow-blowers, 48” scraper
C-12 hp commercial 2-wheel tractor, blade, center-mount scraper blader, riding sulky for 2-wheel tractors

Greenlawn Sprinkler Co., 2200 South Lipan, Denver, Colorado 80223
Greenlawn, adjustable riser sprinkler heads, automatic and manual sprinkler valves, adjustable risers, greenhouse bench nozzles

Griswold Controls, 124 E. Dyer Road, Santa Ana, Calif. 92707
System control module, irrigation controller
Station control module, irrigation controller
Programmer, irrigation controller, check valve, flow control valve, solenoid control valve, pressure regulating valve, combination pressure regulating and solenoid control valve

Ground Hog, Inc., 25010 E. 5th St., San Bernardino, Calif. 92410
Ground Hog earth drills, 3 models (portable—gas powered)
Ground Hog trencher, Model T-3M (for sprinkler systems)

Grunman Aircraft Corp., S. Oyster Bay Rd., Bethpage, L.I., N.Y. 11710
Aircraft, fixed wing

H

HMC, 22131 S. Vermont, Torrance, Calif. 90502
Jobber, utility vehicle—3-wheel
Jobmaster, utility vehicle—3-wheel
Diahatsu, utility vehicle—4-wheel
The Green Machine, weed & brush cutter, nylon blades

Hadfield Sod Roller Co., 6443 Sherwood, Oxford, Mich. 48051
Sod roller

Hahn, Inc., 1625 N. Garvin St., Evansville, Indiana 47717

Jobber, utility vehicle—3-wheel
Jobmaster, utility vehicle—3-wheel
Diahatsu, utility vehicle—4-wheel
The Green Machine, weed & brush cutter, nylon blades

Harbor Industries, Inc., P.O. Box 751, Beaver Falls, Pa. 15010
Jobber, utility vehicle—3-wheel
Jobmaster, utility vehicle—3-wheel
Diahatsu, utility vehicle—4-wheel
The Green Machine, weed & brush cutter, nylon blades

Hancor, Inc., 422 Maple St., Westerlo, N.Y. 12193
Hannay Reels, reels to handle all kinds of hose and electric cable

Marlaid, automatic solenoid valves
Select-O-Rain, industrial controller
Save-T-Rain, impact and pop-up sprinklers

Hemco Corporation, P.O. Box 210/111 N. Powell Rd., Independence, Missouri 64051
Tanks, fiberglass tanks for spraying or storage, 60 to 500 gallons
Travelite tool box, fits all wide bed pick-up trucks

Herd Seeder Company, Inc., P.O. Box 448, Logansport, Indiana 46947
Herd Sure-Feed, broadcast seeders (or broadcasters) for spreading seeds, fertilizer and granular chemicals, as herbicides and insecticides

Hesston Corp., Lawn Equipment Division, 8640 Brookville Rd., Indianapolis, Ind. 46239
Hesston Front-Runner—grounds maintenance tractors, Model 200, 19.8 hp—Model 180, 18.6 hp—Model 160, 16.5 hp; 48", 60" mowers and 80" batwing mower head, self-contained vacuum pick-up (fits 48" & 60" mower heads only). Other attachments: rotary broom, dozer, snow thrower and tillage equipment; features hydrostatic drive, articulated steering, "up-front", roony operator cockpit Hesston stump cutter, 8 hp Briggs & Stratton engine, portable, replaceable Hesston, tractor, 16 hp, 18 hp, 19.8 hp; mower—rotary 48", 60", 80"; vacuum collector, snow-plow dozer blades, rotary broom, cultivators, 42" wide— disc harrow—29"—39" cutting width, aerator, 36" wide, stump cutter, stump removal to 8" below ground level Litter Vacuum V-Plow Two-stage snow thrower

Highway Equipment Company, 616 D Ave. N.W., Cedar Rapids, Iowa 52405
Hi-Way Model P, utility, hopper-type spreader body that is simply set into a truck body to convert pickup, flatbed or dump body into spreader unit; spreads sand salt or cinders up to 40 ft; used too, to spread fertilizer and lime in landscape work

Hoffco, Inc., 25 Washington Ave., Richmond, Ind. 47374
Hoffco, P8—power Scythe, MP—brush cutter, 973—one-man post hole drill, 1000—2-man (2 cycle) post hole drills, 1100—2-man (4 cycle) post hole drill Comet Jac-Lift, 2000 lb, winch hoist

Holsclaw Bros., Inc., 1325 E. Virginia St., Evansville, Indiana 47711
Holsclaw flat bed trailers, flat bed trailer suitable for carrying golf carts, mowers and many other items

Homelite, 70 Riverdale Ave., Port Chester, N.Y. 10573
Saws, chain, 18 models; 8 3/4-26 lbs. weight, 12-60 inch bar length; manual, automatic and dual system chain oiler

Hortiscape, Inc., 7866 Second St., Dexter, Michigan
Hortiscape Landscape Border Edging
Hortiscape Tree Guying units

Howard Rotator Co., Inc., 343 S. Division, Box 100 Harvard, Ill. 60033
Howard Turf Quakers, turf aeration machines
Howard Rotators, rotary tillage equipment
Howard Power Arms, 3-pt. linkage backhoes
Electrical generators
Howard Magnates

Hub States Corporation, 2000 North Illinois Street, Indianapolis, Ind. 46202
520 sprayer, gas powered, high pressure
702 sprayer, electric powered, volume
730 sprayer, electric powered, high pressure
970 sprayer, gas powered, volume
810 sprayer, gas or electric, portable

H. D. Hudson Manufacturing Company, 154 E. Erie St., Chicago, Illinois 60611
Hudson manually-operated sprayers, compressed air, 1-1/3 to 4 gallons, steel and polyethylene tank; knapsack, 4 1/2 to 5 gallons; slide-pump; wheelbarrow, 17 1/2 gallons; barrel and bucket spray-pumps; intermittent and continuous plunger-operated, 5 oz. to 2-2/3 qts.
Hudson manually-operated dusters, plunger, 1-lb. capacity; crank-operated, 14-lb. capacity; knapsack, 17-lb. capacity
Hudson power sprayers, 12 1/2, 15, 30, 50, 100, 150, 200 and 300 gallons, 3, 5 and 10 GPM output, 100 to 300 lbs. pressure; on wheels and skids, PTO and self-powered, jet and mechanical agitation
Hudson power dusters, PTO and engine powered, 6, 4, 2 and 1 outlet; litter-types
Hudson power spray-pumps, 3, 5 and 10 GPM, piston pumps, 250 and 400 lbs. pressure
Hudson PTO pump kits, positive piston, roller
Hudson spray boom, 4, 20 and 30 feet long, for PTO and engine powered sprayers, fixed and adjustable nozzle, single nozzle broad-spray
Hudson spray guns, single, double, triple nozzle; adjustable Hudson power sprayer accessories, guns, boom, trailers (fixed and adjustable tread), tanks, tractor barrel mounts, wheels, cab top, elevated operator platform, telescopic gun mast, nozzles, boom drops, boom control valves, hose, hose clamps, hose fittings, tank refiller, pressure gauges, hose reels, pressure regulators, root feeder, flower gun, 3-nozzle gun, lawn boom
Hudson flame sprayers, 1 1/2 pints, 1 1/2 to 4 gallons

Husqvarna, Inc., 151 New World Way, South Plainfield, New Jersey 07080
Chain saw, gasoline engine powered

Hydraulic Products Co., Inc., 501 East 42nd, Lubbock, Texas 79404
HPC submersible, vertical turbine and vertical can pumps for irrigation, homes, cities and industries

Hydroponic Chemical Co., Inc., Box 4300, Copley, Ohio 44321
Root feeding rods, sod testers

Hydro-Turf, P.O. Box 3, Elk Grove, Ill. 60007
Hydro-Turf: spraying equipment, sprinkler systems—above ground, seeders, portable pumps, portable generators, flexible hose and pipe, Hydro seeders and mulchers

Hypro Division, Lear Siegler, Inc., 375 Fifth Ave. N.W., New Brighton, Minn. 55112
Hypro, sprayer pumps, sprayer pump accessories, transfer pumps

ITT Marlow, P.O. Box 200, Midland Park, N.J. 07432
Pumps, irrigation, portable, submersible

Ideal Crane Div., Bert Parkhurst, 15051 E. Admiral Pl., Tulsa, Okla. 74116
Ideal Crane, hydraulic truck crane (can be operated both electrically and by hand) very rugged; 3000 lb. capacity electrically-operated crane is $513.00; 2500 lb. capacity hand-operated crane is $215.00; barrel chain and nursery slling available

Imperial Underground Sprinkler, 705 E. 31st St., Kansas City, Mo. 64109
Irrigation, spray heads and controllers

Inject-O-Meter Mfg. Co., Inc., 820 Thornton, Clovis, New Mexico 88101
Fertilizer Injectors, for injection of fertilizer, herbicide or insecticide in irrigation stream (available with tanks)

International Harvester Co., 401 N. Michigan Ave., Chicago, Illinois 60611
International, tractors to 101 hp, crawlers 42 to 69 hp, mowers, rotary cutters; flail type; side mounted sickle;
backhoes and loaders, all sizes 3-point hitch backhoe
International 3200, compact loader, 30 hp

**International Harvester** (Consumer Products) 401 N. Michigan Ave., Chicago, Ill. 60611
International, lawn and garden tractors, 8, 10 & 12 hp
gear drive; 10, 12 & 14 hp hydrostatic drive
Cub Cadet, Cadet 55 and 75, riding mower
Cadet 76, lawn and garden tractor
International 526, rotary tiller
International 95, electric riding mower plus 95 Cadet
electric
International 265 & 268, snowblower
International, rotary mowers 19 & 21-inch cuts

**Irrigation Supply Co.,** 924 Baxter Avenue, Louisville, Kentucky 40204
Preassembled pumping stations for irrigation systems
Buckner sprinklers
J-M pipe; ametek valve boxes; dresser gate valves; and complete stock of irrigation and utility fittings and supplies

Irrometer Company, Inc., P.O. Box 2424, Riverside Calif. 92506
Irrometer moisture measurement equipment, hermetically sealed pressure gauges for pumps & irrigation systems, automatic moisture sensing devices

**J**

JLM Products & Design, 6805 Boysenberry Way, Colorado Springs, Colo. 80907
Soil moisture meter, tested to 12-inch depth, deeper depth units available

**Jacobsen Manufacturing Co.,** 1721 Packard Ave., Racine, Wisconsin 53403
Mower, rotary, push, 20-inch; self-propelled, 21-inch; riding, 60-inch
Mower, reel, self-propelled, riding, tractor, 30-inch to 25 ft., mounted and pull behind gang
Mowing tractors, reel, 76-inch to 19 ft.
Mower, greens; 22-inch self-propelled, triplex riding, 62 inches
Aerators, self-propelled and tractor mounted, 18-inch to 7 ft.
Turf Sweeper, self-propelled and pull behind 48 inches and 60 inches
Seeders, self-propelled and tractor mounted, 21-inch and 48-inch
Top Dresser, self-propelled and truck mounted, 36-inch spreading width
Sod Cutter, 12-18 inch cutting width
Edgers
Utility truck, 12 and 14 hp
Trailer, 6 ft. wide and 10 ft. long, tilt bed, single axle
Pipe Piper, 10, 14, 18 hp irrigation pipe pullers; bury the pipe without removing the earth, no trenching

Jameson Corporation, P.O. Box 15277, Charlotte, N.C. 28210
Fiberglass “Safe Stick”, fiberglass pruner poles—single sections up to 12 ft. long; fiberglass pruner poles—sectional sections up to 12 ft. long which can be locked together for any desired combination of lengths. Poles will accommodate all pruner heads; “safety yellow”—color

Jeep Corporation, 14250 Plymouth Road, Detroit, Michigan 48232
Jeep 4-wheel drive vehicles, Jeep CJ-5/CJ-6 and Jeep Cherokee 4-wheel drive sport/utility vehicles, Jeep Wagoneer 4-wheel drive station wagons and Jeep 4-wheel drive pick-up trucks (light/medium duty)

Jobu Chain Saws, P.O. Box 6023, Texarkana, Texas 75501
Chain saws

Johnson Hydraulic Equipment Co., Div. Arps Corp., 1711 Wisconsin Ave., New Holstein, Wis. 53061
Work Horse Loader, for compact tractors and front-end loader
Work Horse Terra-blade, for compact tractors belly-mount blade
Work Horse Terra-comb, for compact tractors, combination thatcher and power rake

Johnson’s Industrial Supply Co. (Jisco) 1941 Karlin Dr., St. Louis, Mo. 63131
Jisco earth augers, the quick easy professional way for home owners to deep root feed their trees, bushes and shrubs

Jomac Products, Inc., 863 Easton Road, Warrington, Pa. 18976
Protective clothing, partial or complete protection
Gloves, chemical and waterproof gloves for handling chemicals

K

K-D Manufacturing Company, P.O. Box 4547, Waco, Texas 76705
K-D Kurb Dresser, edges streets, curbs and walks; mounts on tractor equipped with category 1, 3-point hitch; can be used to edge along concrete or asphalt
K-D Rough Terrain Lift Trucks, lift capacities, 5,000 to 8,000 lbs., lift heights to 30 feet, large flotation tires for soft ground and rough terrain, gas or diesel engines, manual or power reversing transmissions

F. D. Kees Mfg. Co., 700 Park Avenue, Beatrice, Nebraska 68310
Powerrake®, thatcher, lawn
PowerSlic®, aerator, lawn
Kom-pak, shredder
Kaster, spreader, broadcast, fertilizer, seed, lawn
Krawler, sprinkler, traveling, lawn
Kemp Shredder Co., 1027 E. 26th St., Erie, Pa. 16505
Shredders

Kinco Mfg., 2368 Territorial Road, St. Paul, Minnesota 55114
Kinco KMG 38, sickle bar mower
Henderson GPM, verti-cut and flail-type mower

King Bros. Industries, 251 Powell Rd., Fillmore, Calif. 93015
Flex-Riser®, flexible riser for sprinkler systems
Sta-Stake®, sprinkler riser support

Knaack Manufacturing Co., 420 East Terra Cotta Ave., Crystal Lake, Ill. 60014
WeatherGuard, storage chests and ladder racks for pick-up trucks (for equipment and tools)
Knaack, storage chests, work benches, and tool boxes

Kohler Co., High Street, Kohler, Wis. 53044
Kohler, 4-cycle, air-cooled engines, 4 hp to 24 hp

Kubota Tractors, Inc., 6245 Grand Ave., Los Angeles, Calif. 90014
Tractors, up to 40 hp

Karl Kuehnerling, Inc., 4536 Lincoln Way, E., Massillon, Ohio 44646
Willson, safety hats
Mitts & Merrill, brush chipper (territory Ohio, Ky., Western Pa., Western N.Y., W. Va., Md. from Hagerstown west)
Solo, sprayers
Hodges, stump router (territory E. of Mississippi)
Seymour Smith, pruners
Fanno, saws
Greenlee, tools
Carhartt, uniforms
Nortec, log splitter
Little Wonder, pruners
Champion, pruners
Skod, saws and pruners
B.V.D., saws and pruners
Standard, brooms
Wall Rope Co., rope
Klein, tools
Whitlock—Plymouth, rope

Lakes Supply Co., Inc., P.O. Box 101 Dundee, Ill. 60118
Toro, landscape seeders and rollers
Lakes Supply Co., Inc., drip weed roller applicator
Western, snow plows
Toro, lawn mowers
Huffy, lawn mowers and riders
Hahn Eclipse, lawn mowers and riders
Jacobsen, lawn mowers and riders
Ariens, lawn mowers and riders
WD-40, lubs.
Hoists for pickup trucks & larger

Lakeshore Equipment & Supply Co., 10237 Berea Rd., Cleveland, Ohio 44102
Replacement parts, mowers
Golf accessories, flags, cups, etc.

Lakeside Mfg. Company, Inc., 39 E. Main St., Honeoye, N.Y. 14471
Trailers, industrial, 6 to 15-ton rated capacity

Saws, chain, five models, 8½-15 lbs. weight, 12-24-inch bar lengths, manual and dual system chain oiler

L. L. Larson Machine, Inc., 1017 N. Santa Fe, P.O. Box 308, Princeville, Illinois 61559
Sprayer pump, piston, roller & centrifugal
Portable water pumps, centrifugal, roller & piston
Sprayer nozzles, broadcast & hi pressure
Sprayers for ground coverage, broadcast & spot application
Sprayers for trees, 20 ft. x 50 ft. application
Sprayers for turf, broadcast & spot application
Sprayers, fertilizer-mounted, broadcast & spot application
Spreader, fertilizer, pull-type, broadcast 40 ft. pattern

Laval Separator Corp., 1899 N. Helm, Fresno, California 93722
Laval Separator, hydro-cyclone de-sanding device that eliminates 98% of +200 mesh sand and grit. Can be installed on pump discharge or suction. Available in flow rates from 3-4100 gpm. Has a low pressure loss; often used in place of filters or screens

Lawn-Boy, OMC-Lincoln, P.O. Box 82409, Lincoln, Nebraska 68501
Lawn-Boy, solid state ignition rotary mowers, deluxe model rotary mowers

Lawn Medic, Inc., Manufacturing & Research, 10 Gates Street, Bergen, New York 14416
Porto-Mixer, hand-operated small 1 c.y. portable tumbler

Lehara Equipment Co., Inc., Edgeboro Rd., East Brunswick N.J. 08816
Lehara Hy-Dro Flail, hydraulic extension mower—for mowing behind guard rails, up and down banks

Leigh Products, Inc., Cooper ville, Michigan 49404
Universal-Spray Doc, sprayer—tank; sprayers—open top tank

Universal, slide sprayer; flame sprayers; hose-end sprayers; power sprayers; continuous and intermittent hand sprayers; hand dusters; fogger—mineral base

The Lely Corporation, P.O. Box 1060, Route 301, Wilson, N.C. 27893
Lely Broadcaster/Seeder, P.T.O. driven, lift and pull-type spreads fertilizer, seed, sand or chemicals
Lely Roterra, P.T.O. driven power harrow, horizontally contro-rotating tines, prepares seedbed, incorporates chemicals, levels and firms land

Levco Manufacturers, Inc., P.O. Box 72, Wynne, Arkansas 72396
Model HD50 Stump Grinder, a one-man stump removal system offering unequalled maneuverability and speed; operates behind a standard pickup truck (½-ton) or small tractor; features include industrial, water-cooled power unit and self-contained hydraulic system

Fred A. Lewis Company, 40 Belknap Rd., Medford, Oregon 97501
Lewis “Mole”, post hole digger powered by your chain saw
Lewis “Donkey” Winch, winch powered by your chain saw
Lewis Tractor “Mole”, post hole digger attachment to small tractors (front end attachment)

Lifetime Career Schools, 2251 Barry Ave., Los Angeles, Calif. 90064
Landscape training. Complete home study training in landscaping and ground care; free booklet describes training in detail

Lift-Quik Mfg. Co., South Min St., Evans Mills, N. Y. 13637
Lift-Quik, garden, golf cart, lift

Limb-Lopper Co., Inc., Div. of Robinson Ind., 11845 Burke, Santa Fe Springs, Calif. 90670

Lindig Manufacturing Corporation, 1875 West County Rd. C, St. Paul, Minnesota 55113
Lindig, shredders (soil and compost)—manual and tractor fed, capacity up to 200 yards/hour; screeners (powered) for soil and sand; brush chippers, 7 to 160 hp, compact and full size for branches up to 8” in diameter, also PTO drive; soil treating (sterilization) systems; leaf shredders and compost pulverizer/mixers
Lindig Kajon, compact brush chippers 7 to 10 hp
Lindig Concho, compost shredder/grinder

Locke Mfg., Div. of Stellar Lawn Care, 1085 Connecticut Ave., Bridgeport, Conn. 06607
Mowers, reel, self-propelled and riding, 30 inches to 87 inches; rotary

Lockwood Corporation, Box 160, Gering, Nebr. 69341
Lockwood Hardie Sprayers, airblast sprayer, 300 or 500 gallon stainless steel tank, trailer mount; utility (general purpose) 100 to 500 gallon stainless steel tanks. Truck trailer or skid mounted; shade tree—600 gallon stainless steel tank, truck mounted

Lombard Power Equipment, Sales Ave., Harrison, Ohio 45030
Lombard Power Equipment, 1500 electric, saw, chain, 12-inch bar; 12 amps Pony, saw, chain, gasoline, 12-inch bar, 6½ lbs. Comango, saw, chain, gasoline, 16-inch bar
Super comango, saw, chain, gasoline, ½ “anti-vibe,” automatic oiler
Super Lightning, saw, chain, gasoline, ½ “anti-vibe,” automatic oiler, 20-inch bar; saw, chain, gasoline, full “anti-vibe,” automatic oiler

London Fog Company, Crystal Bay, Minnesota 55323
London Foggers, thermal foggers from 3 hp hand portable through 16 hp heavy-duty
London Aire, ULV insecticide dispersal equipment from 5 hp dolly mounted type through 9 hp extra heavy-duty for large area mosquito control

Lumenite Electric Co., 2331 N. 17th Ave., Franklin Park, Ill. 60131
Lumenite, lawn irrigation control and equipment
ELS-5 and 11; 5 station and 11 station economical lawn irrigation controls
LAS-6PC to 40PC; 6 station to 40 station deluxe lawn irrigation controls
RDC-1000 rain detector control with variable sensitivity
RDP-1000 rain detector probe assembly

Lupton Enterprises, 32 Martha St., Tiffin, Ohio 44883
Log splitter, attachment to backhoe, replaces bucket in minutes

M

M-B Company, 1615 Wisconsin Ave., New Holstein, Wis. 53061
Brush Chippers, trailer-mounted—12” and 15” sizes 120-158 hp gasoline engines
Orchard Chipper, tractor 3-point hitch attached PTO driven (540 RPM), 12” wide chipper with feed apron and 180° discharge chute
1-10, 3-10, 5-10, line marker, hand operated
Fitchburg chipper, brush chipper 12 in. and 15 in.
Tractor Brooms, sweepers

Maasdam Pow'r Pull, Inc., P.O. Box 6130, Burbank, Calif. 91510
Maasdam Pow'r Pull, winch-puller

Magline, Inc., 503 S. Mercer, Pinconning, Mich. 48650
Trailerator®, trailer, hydraulic elevating

Mars Industries, Inc., 5209 West Broadway, Minneapolis, Minn. 55429
Suburban Pick-up sweepers, tow-type for turf and hard surface sweeping

Martindale Electric Co., 1375 Hird Ave., Cleveland, Ohio 44107
Martindale Protective Mask, respiratory protection against non-toxic dusts
Martindale Protective Eyeshield, one-piece eyeshield

Massey-Ferguson, Inc., (Industrial Products) 1901 Bell Ave., Des Moines, Iowa 50315
MF 20, industrial tractor, 38 hp
MF 30, Industrial tractor, 52 hp
MF 31, industrial tractor, 70 hp
MF 40, industrial tractor, 38 hp
MF 20 Turf, industrial tractor, 38 hp
MF 30 Turf, industrial tractor, 52 hp
MF 20, 30, 40, 50A, 70, backhoe-loader; ¾ cu. yd., ¾ cu. yd., ½ cu. yd., 1 cu. yd. respectively; up to 16 ft. digging reach; all but MF 70 available separately
MF 711, skid steer loader
MF 40, forklift
Box scraper, landscape

Massey-Ferguson, Inc., (farm equipment), 1901 Bell Ave., Des Moines, Iowa 50315
MF 135, tractor, 38 hp (PTO)
MF 165, tractor, 50 hp (PTO)
MF 175, tractor, 63 hp (PTO)
MF 180, tractor, 63 hp (PTO)
MF 1080, tractor, 80 hp (PTO)
MF 1105, tractor, 100 hp (PTO)
MF 1135, tractor, 120 hp (PTO)
MF 1155, tractor, 140 hp (PTO)
MF 1500, tractor, 150 hp (drawbar)
MF 1800, tractor, 180 hp (drawbar)

Massey-Ferguson, Inc., (consumer products), 1901 Bell Ave., Des Moines, Iowa 50315
MF 14, garden tractor, 14 hp
MF 126, garden tractor, 12 hp
MF 10, garden tractor, 10 hp
MF 310, self-propelled rotary mower, 3.5 hp
MF 210, push rotary mower, 3.5 hp
MF 58, 68, 61, 71, rotary cutters, cutting widths up to six feet

Mathews Company, P.O. Box 70, Crystal Lake, Ill. 60014
Lawn Genie, flail mower-sweeper-mulcher, 3 ft. and 6 ft. models

Maxey Manufacturing Co., Inc., P.O. Box 2001, Ft. Collins, Colo. 80521
Trailers, equipment trailers—medium duty
Truck Bodies, customized truck beds
Snow grooming, ski area and snowmobile trail grooming and snow moving equipment

McCabe-Powers Body Co., 8900 N. Frost, St. Louis, Mo. 63115
Brush cutter

McDonough Power Equipment, Inc., McDonough, Georgia 30253
Mower, rotary, push-type and riding; reel, self-propelled

Melnor, Industries, Turf Div., 1 Carol Place, Moonachie, New Jersey 07074
Shrub nozzle adapters
Stationary spray heads
Pop-up spray heads
Rotary spray heads
Pulsating spray heads
Solenoid valves
Time controls
Quick coupler valves
Pipe and fittings
Underground irrigation systems, stationary & pop-up

Melo Division, Gwinner, North Dakota 58040
Bobcat, front-end skid steer loader

Metro-chiper, Vestor Div., Morbark Ind., Winn, Mich. 48996
Chippers, for large tree chipping

Miller Tilt top Trailer, Inc., 450 S. &2 St., Milwaukee, Wis. 53214
Tilt Top®, machinery hauling trailer, changes quickly from the wheel to over the wheel trailer
Ramp Champ®, over-the-wheel platform trailer; both trailers available with new gooseneck hitches

Mid-State Metal Casters & Mfg. Co., 2689 So. 10th St., Fresno, Cal. 93725
Sweep, vacuum; yard
Blower, leaf blower (wind-row)

Mine Safety Appliances
Masks, dust, gas
Protective clothing
Safety belts and equipment
Respirators

Mitts & Merrill, Inc., 109 McCoskry St., Saginaw, Michigan 48601
When you talk ROOTS, you're really talking about a combination of several important characteristics.


At E. F. Burlingham & Sons, we know. Because we've spent the last 70 years experimenting and developing higher quality grass seeds for your use*

The results speak for themselves. Not long ago, we introduced a hardy Swedish Kentucky Bluegrass to the United States. Its name: Sydsport.

One of the outstanding characteristics of this variety was its dense, rapid spreading root system. In this case, the roots were primarily responsible for the important winter hardiness, disease and drought-resistant characteristics which mark this Swedish import.

As a result, Sydsport has more than earned the reputation of being "the first grass to green and the last green to go."

Sydsport from E. F. Burlingham & Sons. Just one of the many reasons why... when you talk about ROOTS, you talk about Burlingham.

E. F. Burlingham & Sons, P.O. Box 217, Forest Grove, OR 97116. Phone: (503) 357-2141; Telex 36-0274; Cable: Burlingham.

* Bonnieblue, Majestic, Sydsport and Birka Kentucky Bluegrasses and Koket Chewings Fescue.
Chipper, brush, staggered knife pattern, swing away folding feed chute, positive safety lock pin

Mobile Aerial Towers, Inc., 2314 Bowser Avenue, Fort Wayne, Indiana 46803
Hi-Ranger, personnel platforms

Moody Sprinkler Co., Inc., 3020 Pullman St., Costa Mesa, Calif. 92627
Rainmaster, automatic valves, electric and hydraulic; automatic controllers, electric and hydraulic; sprinklers—pop-up and stationary heads

Morbark Industries, Inc., P.O. Box 1000, Winn, Michigan 48896
Morbark Total Chipharvestor’s, portable disc type chipper reduces whole trees, limbs in tact to dimensional wood chips. Two models, One unit will reduce 21” diameter material, the other 18” diameter material in less than one minute.

Mott Corporation, 500 Shawmut Ave., LaGrange, Illinois 60525
Industrial, commercial, institutional grade flaire type safety mowers, styles are walk behind or ride behind; tractor mounted & powered front, mid or rear; tractor drawn self powered used singly or in gangs; and side mounted (tractor) hydra-dynamically driven

MTD Products, Inc., 5389 W. 130 St., Cleveland, Ohio 44111
Rotary Vacuum Shredder Bagger, 5 hp, 3 stage cutting action blade

Mud Cat, Div. of National Car Rental, 5501 Green Valley Dr., Minneapolis, Minn. 55431
Weed harvester, aquatic

The F. E. Myers & Bro. Co., 400 Orange Street, Ashland, Ohio 44805
Turf Line, TL 10 E2 10 GPM-500 PSI 200 gallon—paddle agitator; TL 10 E2S 10 GPM-500 PSI 200 gallon—skid model; TL 35 E5 35 GPM-800 PSI 500 gallon—engine—rotary agitator; TL 29 100 GPM-29” fan—150 gallon—engine—mist sprayer

National Hydro-Ax, Inc., Box 568, Owatonna, Minnesota 55060
Model 500 hydro-ax brush cutter, 117 h.p., 4 wheel drive, articulate steering, front axle oscillation, 8 foot wide rotary cutter
Hydro-Ax’s unique dual hydrostatic system insures full cutter power while maintaining maximum tractive effort . . . even during inching.

National Mower Co., 700 Raymond, St. Paul, Minn. 55114
National, 84” National Triplex Reel, 10 hp riding Reel; 68” National Triplex Reel, 10 hp riding reel; 68” National Triplex Reel, 8 hp; 30” National Triplex Reel, 8 hp riding reel

L. R. Nelson Corporation, 7719 N. Pioneer Lane, Peoria, Illinois 61614
Rain Train, traveling sprinklers
Silver Rain, pop-up sprinklers, landscape and turf irrigation equipment

Nunes Manufacturing, 2006 Loquot Avenue, Patterson, California 95363
Nunes Sod Harvester, complete mechanical sod harvester; mounted on Ford Model 4110 tractor; front cutoff and cutter assembly; will eliminate sod cutter labor; available in styles to: fold, slab, roll, sod.
Nunes Vacuum Sweeper, turf sweeper designed for sod growers; available with PTO drive or motor driven

Pumps, bronze and aluminum, rotary gear, rubber impeller, rubber cotlar, centrifugal, helical rotor

Olathie Mfg., Inc., 2nd and Mullberry, Paola, Kansas 66071
Olathe Model 800 Quiet Chipper, brush, limb and lumber chipper with new patent pending noise control features
Model 8 Stump Cutter, portable stump remover, 8 hp
Model 12 Chipper, 3-pt. hitch PTO powered brush chipper
Model 172 and 330 pers, trailer mounted engine powered brush chippers
Model 400 hydraulic power unit, 8 hp portable hydraulic power unit

Omark Industries, Inc., Oregon Saw Chain Division, 9701 S. E. McLoughlin Blvd., Portland, Oregon 97222
Oregon Saw Chain, saw chain and accessory items
Oregon Power Mate and Super-tronic saw bars
Oregon Power Mate, rim and drum sprockets

Onan Division of Onan Corp., 1400 73rd Ave. N.E., Minneapolis, Minn. 55114
Engines, 12-25 hp
Generators, electric portable-15KW
Battery chargers

Otis Elevator Company—Special Vehicle Division, P.O. Box 8600, Stockton, Calif. 95208
Otis Golf Car, electric, 4-wheel, 36 volt
Otis Turf-Awl, gasoline, 3 and 4-wheel, 18 hp
Otis Materials Handling, Div. Otis Elevator Co., 8000 Baker, Cleveland, Ohio
Forklifts

Pappee Machine Co., Shortsville, N.Y. 14548
Leaf blower

Par Aide Products Co., 296 No. Pascal Street, St. Paul, Minnesota 55104
Complete Line of Greens and Tee Accessories equipment including: golf ballwashers, flag poles and flags, tee towels, detergent for golf ballwashers, aluminum and plastic putting cups, hole cutters, cup setter, cup puller, rule signs, custom tee plaques, furniture for locker room and tee benches; spike rushes, sand trap rakes, etc.

Parco Products Co., Pottstown Ave. & Dotts St., Pennsburg, Pa. 18073
Dragon Model 180, backpack sprayer

Pargo, Inc., 4300 Raleigh St., Charlotte, N.C. 28205
Pargo golf carts, Models 803 & 804, 3 & 4 wheel electric golf carts

Pacific Agro bags it!

Organic Nitrogen
The organic nitrogen with guaranteed W.I.N. to combat leaching problems.
A workhorse won't win a beauty contest

With an 84 and 68-inch cut, NATIONAL Triplex mowers cut grooming time in half around greens and traps.

Efficient! National's Triplex maneuvers sharply, climbs banks and hillsides easily and safely. Three power driven, free-floating reels follow ground contour. Reels do a precision job without skip or scalping. Handles the clubhouse lawn and practice areas, too!

Durable! Timken bearings; automotive-type transmissions; heavy duty, tubular steel tie rods and bed knife frame; and cutter lip bar...all add up to more years of use!

Serviceable! No-nonsense design makes normal service faster than any mower on today's market!

You won't find fancy shrouds, shiny hubcaps or chrome accent strips on a NATIONAL "workhorse." Our 84" and 68" Triplex Mowers are not designed for beauty...Just performance and durability!

FAST! With an 84 and 68-inch cut, NATIONAL Triplex mowers cut grooming time in half around greens and traps.

EFFICIENT! National's Triplex maneuvers sharply, climbs banks and hillsides easily and safely. Three power driven, free-floating reels follow ground contour. Reels do a precision job without skip or scalping. Handles the clubhouse lawn and practice areas, too!

DURABLE! Timken bearings; automotive-type transmissions; heavy duty, tubular steel tie rods and bed knife frame; and cutter lip bar...all add up to more years of use!

SERVICEABLE! No-nonsense design makes normal service faster than any mower on today's market!

NATIONAL...our reputation is your guarantee of quality! Our start in 1919 makes us one of the (if not the) oldest power mower manufacturers in the U.S.A.

NATIONAL Mower Company
680 Raymond Avenue - St. Paul, Minnesota 55114
Phone: 612/646-4078

For More Details Circle (107) on Reply Card
available in black, white, red, blue, green, or yellow; connecting links and S-hooks also available by color; Guideline Lane Equipment is ideally suited for directing crowds at all indoor functions, outdoors in parking lots or at field events, or where ever people gather; easy to set up, move, remove, or store; permanently attractive, requires no maintenance. Stanchion can be weighted with sand or water via hollow base

Plastic Techniques, Inc., P.O. Box 197 New Boston, N.H. 03070
- Plastic Techniques, aerial lift truck accessories
- Plastiline, Inc., 1251 N.E. 48 St., Pompano Beach, Fla. 33061
  - Plastic pipe fittings
  - Wedge-O-Flex gasket fittings
- H. K. Porter, Inc., 74 Foley St., Somerville, Mass. 02143
  - Cutters, bolt, rod, cable, chain, etc.
  - Shears, lopping
  - Trimmers, tree
  - Shears, pruning
  - Cutters, brush and root
- Power Spike Mfg. Co., Walters, Okla. 73572
  - Power Spike, spiker
- Precision Chipper Corporation, Box 360, Leeds, Ala. 35094
  - Chipper, heavy-duty, industrial, feed through rate of about 125 feet per minute
- The Prestolite Company, 511 Hamilton Street, Toledo, Ohio 43694
  - Batteries, spark plugs, ignition parts, magneto ignition systems, wire and cable
- Princeton Manufacturing Co., 2625 Johnstown Road, Columbus, Ohio 43219
  - Princeton Sod Harvester, self-propelled harvester, cuts and stacks sod on pallets
- Product Development International, Box 676 Liberty, S.C. 29657
  - Tree-Injectors, systemic tree injection kit
  - Riggin’-Buddy, rigging device for tree workers
  - Magic Knot, mechanical fastener for rope tying
  - Quick Cablers, easy tree bracing system
  - Tool Holders, for holding tree workers tools on belts
  - Climber’s Tie-In Strap, lightweight safety strap for tree climbers
  - Training Manuals, for all tree care people
- Public Health Equipment & Supply Co., 1720 So. Presa St., San Antonio, Texas 78210

Mission bags it!

Nitroform

Organic Nitrogen

The long-lasting economical nitrogen that pampers turf with slow, sustained nourishment. Best choice for nursery stock.

Turf and Horticultural Products, Synthetics Dept.
Wilmington, Delaware 19899

*Registered trademark of Hercules Incorporated.®

Hercules

Incorporated

Swingfog SN 11 high performance fog generator (thermal)
- Fontan knapsack sprayers
- Fontan knapsack dusters
- Fontan knapsack granular applicators
- Fontan knapsack flame throwers
- Lownes engineering “Leco” ULV cold fog generators
- Buffalo turbine sprayers, dusters and ULV equipment

Q

Quadra Mfg. Ltd., Box 491, Trail, B. C., Canada
  - Frontiers, super-light weight chain saws

Quality Marsh International, P.O. Box 406, Thibodaux, La.
  - Quality, amphibious marsh and swamp equipment; amphibious draglines; amphibious personnel carriers; amphibious roto booms

R

R.A.M. Industries, Inc., 125 N. 10th. Street, Waukee, Iowa 50263
- R.A.M. Industries, Inc., Schuster gooseneck trailer line: grain, livestock, flatbeds, machinery

RainBird Sprinkler Mfg. Corp., P.O. Box 37, Glendora, Calif. 91740
- Impact sprinklers, spray heads, rotor pop-up sprinklers, electric valve-in-head sprinklers, hydraulic valve-in-head sprinklers, quick coupling valves, manual angle valves, electric remote control valves, hydraulic remote control valves, electric and hydraulic automatic controllers, specialty valves, valve markers, electric underground cable

Rain Jet Corporation, 301 S. Flower St., Burbank, Calif. 91503
  - Sprinkler heads for lawn & turf irrigation
  - Shower bath head — the only rotary massage shower head
  - Ornamental garden fountain — “Shower of Diamonds”
- Rain-O-Mat Sprinklers, Inc., 12414 Whittier Blvd., Whittier, Calif. 90608
  - Sprinkler irrigation equipment
- Raven Industries, Box 1107, Sioux Falls, South Dakota 57101
  - Fiberglass tanks
  - Rhino polyethylene tanks

Reach-All Manufacturing and Engineering Co., 436 Calvary Road, Duluth, Minnesota 55803
- Reach-All, hydraulically operated aerial baskets, truck mounted hydraulic cranes
- Rego, 4201 W. Peterson, Chicago, Ill. 60646
  - Rego, valves (LP and compressed gas)
  - Rego, regulators (LP and compressed gas)
  - Rego, oil-less air compressors

Reinco, Inc., P.O. Box 584, Plainfield, New Jersey 07061
  - Reinco, Inc., hydrograsers, power mulchers
- Republic Aviation Corp., Helicopter Div., Farmingdale, Long Island, N.Y. 11735
  - Aircraft, helicopter

Ridge Plastics Co., Highway 18 East, P.O. Box 2205, Jonesboro, Arkansas 72401
- Biaxially oriented HD plastic pipe, sub-irrigation

Robco, Inc., 2800 Bay Road, P.O. Box 5326, Redwood City, Calif. 94063
- Robco—Hatsuta, back-pack mist blower, duster
  - Robco, high pressure piston pumps, 4 GPM to 28 GPM;
  - Hand sprayers and hand dusters; High pressure vinyl spray hose
- Rockwell International, 5001 North Rockwell Ave., Bethany, Oklahoma 73008
  - Rockwell Thrush Commander, agricultural aircraft, fixed wing
Rogers Bros., 100 Orchard St., Albion, Pa. 16401
Trailers
Roth Mfg., 1011 W. Howard St., Pontiac, Ill. 61764
Ranger, mower, self-propelled, tilt blade for heavy cutting, 5 hp or 7 hp, 24-inch or 26-inch cut.
Roof 400, mower, push, blade clutch, 5 hp, 21-inch or 24-inch cut, belt driven blade

Root-Lowell Mfg. Corporation, 1000 Foreman Road, Lowell, Michigan 49331
Durapower, power sprayer: 10 gpm double piston pump @ 400 p.s.i., tanks 100, 200, 300 gallons
Spraycat, power sprayer: 3 gpm single piston pump @ 250 p.s.i., tanks 15, 30, 50 gallons
Duraclay "10", pump: double piston, 10 gpm @ 400 p.s.i.

Roper Corporation, 1905 W. Court St., Kankakee, Ill. 60901
Saws, chain; manual and automatic; dual system chain oiler

Rosco Manufacturing Co., 3118 Snelling Ave., So., Minneapolis, Minn. 55406
Rollpac, steel wheeled roller, lawn, asphalt paths, etc.

Roseman Mower Corporation, 2300 Chestnut Avenue, Glenview, Illinois 60025
Roseman, mowers—gang reel, both mounted and hydraulic driven; tiller rake—landscape tiller rake

Rotary Power, Inc., P.O. Box 244, Centerville, Tennessee 37033
Kurb Kutter, tractor mounted curb edger for grass Hydrauljc tractor seat, self leveling tractor seat

Roto-Hoe Co., Newberry, Ohio 44065
Cut 'N Shred, shredder, 3 1/2 hp, interchangeable with tiller

Rowco Mfg. Co., Inc., 48 Emerald St., Keene, N.H. 03431
Brushking*, brushcutter, engine driven

Royer Foundry & Machine Co., 158 Pringle St., Kingston, Pa. 18704
Royer Shredders, Models 362, 262, 180, 120, 12, 10, and 8 Power Screens, Models 30 and 42
Royer Chipper, Model 2600 PTO & 2640 self-powered

Ryan, OMC-Lincoln, P.O. Box 82409, Lincoln, Nebraska 68512
Ryan turf equipment, full line of turf aerators, spikers, renovators

Joseph T. Ryerson & Son, Inc., P.O. Box 8000-A, Chicago, Ill. 60680

Sabre Saw Chain, Inc., Third Ave. and Sabre Drive, Niagara Falls, N.Y. 14304
Sabre, saw chain, guide bars, sprockets, wedges, files, accessories

Safe-T-Lawn, Inc., 7800 N.W. 32nd St., Miami, Florida 33122
Safe-T-Rain, rotor pop-up (ball drive)
Safe-T-Rain, valve inhead type
Rise-N-Rain, impact type pop-up
GL-67, 2" pop-up spray type
GL-71, 6" pop-up spray type

Safety Test & Equipment Co., Inc., P.O. Drawer 400, Shelby, North Carolina 28150
Wood/Chuck, manufacturer of Wood/Chipper capable of chipping logs up to 8" in diameter
Safety Test, manufacturer of complete line of tree trimming and linemen’s equipment

Satoh Tractor c/o NEDA, P.O. Box 5025, Richmond, Va. 23220
S-650G, tractor, utility, 25 hp; water-cooled, 4-cylinder engine, category 1—3-point linkage; 2-speed PTO, 540 and 1,000 rpm
S-550G, tractor, utility, 17 hp; water-cooled, 4-cylinder engine, Category 1—3-point linkage; 540 PTO

Safeline Products, P.O. Drawer 400, Shelby, North Carolina 28150
Wood/Chuck, manufacturer of Wood/Chipper capable of chipping logs up to 8" in diameter
Safety Test, manufacturer of complete line of tree trimming and linemen’s equipment

Satoh Tractor c/o NEDA, P.O. Box 5025, Richmond, Va.

Sabre Saw Chain, Inc., Third Ave. and Sabre Drive, Niagara Falls, N.Y. 14304
Sabre, saw chain, guide bars, sprockets, wedges, files, accessories

Safeline Products, P.O. Box 550, Putnam, Conn. 06260
Respirators (all types), lung protection
Safety Glasses and goggles, eye and face protection
Hearing protectors, muff-type and ear plugs
Hard hats and caps, plastic safety hats and caps

Safe-T-Lawn, Inc., 7800 N.W. 32nd St., Miami, Florida 33122
Safe-T-Rain, rotor pop-up (ball drive)
Safe-T-Rain, valve inhead type
Rise-N-Rain, impact type pop-up
GL-67, 2" pop-up spray type
GL-71, 6" pop-up spray type
Skaggs Turf Equip. Co.
Rakes, all purpose
Skil Corporation, 5033 Elston Ave., Chicago, Ill. 60630
Skilsaw, chain saws
GSR Color Guard, PVC fittings for pipelines, sizes include 3/4-inch through 2 inches class 315 and 2 1/2 inches through 8 inches; class 200, press rated
Slope Tractor, Inc., 106 W. 9th Ave., Harper, Kansas 67058
Slope Runner, tractor mower, rotary flail or sickle, adjustable angle hydraulic lever control adjusts wheels and tractor chassis to remain in level attitude on a slope
Smith & Co., Inc., D.B., 414 Main St., Utica, N.Y. 13503
Sprayers, complete power unit
Smith Precision Products Co., 1299 Lawrence Dr., Newbury Park, Calif. 91320
Measure-Mix, measures precise mixture of fertilizer to water when watering shrubs, lawns, etc.
Smithco, Inc., 107 Bauer Dr., Oakland, N.J. 07436
Top Rider, top dresser
Little Beaver Spiker, spiker
Easy Rider III, sand trap rake
Lark, 110-gallon fiberglass sprayer
Hawk 200, 200-gallon fiberglass sprayer w/Golden Eagle pump
Hawk 300, 300-gallon fiberglass sprayer w/Golden Eagle pump
Cardinal, 200-gallon stainless steel sprayer w/Golden Eagle pump
Little Red, 6 1/2 hp 3-wheel turf vehicle
The Snow Company, 4350 McKinley, Omaha, Nebraska 68112
Snowco, utility trailer. Power-Kart, umbrella/buggy top, Nomad/Tri-Scat/Super-Scat
Soilmoisture Equipment Corp., P.O. Box 30025, Santa Barbara, Calif. 93105
Jet Fill Tensiometer No. 2725, moisture measuring equipment for irrigation control, semi-permanent installation, sizes 6" through 60"
Quick Draw Tensiometer No. 2900, Moisture measuring equipment for irrigation control, portable, sizes 12" through 18"
Turf Probe No. 2950, double action tensiometer measuring moisture at 2" and 5", portable
Soilmoisture Tensiometer No. 2710, moisturizing measuring equipment for irrigation control, semi-permanent installation, sizes 6" through 60"
Soil Water Sampler No. 1900, Obtains soil water for laboratory analysis and learning determinations, permanent installation, sizes 6", 11", 24", 36", and 48"
Soil Sampling System No. 215, “Veihmeyer/King” soil sampling probes, sizes 4" through 16"
Soil Auger No. 230, auger equipment for strata identification, core sizes of 2", 3", 3 1/2", and 4"
Salinity Sensors & Bridge No. 5500, salinity sensing equipment for field use, portable
Plant water status console No. 3000, portable plant moisture stress indicator
Solo Motors, Inc., P.O. Box 5030, 5100 Chestnut Ave., Newport News, Virginia 23605
Sprayer, Model 425 hand operated
Mistblower, Model 410 3 hp, Model 423 5 hp
Tractor Sprayer, 10 hp, Model 424 self-propelled; 18 hp, Model 450 self-propelled; Model 451 PTO mounted; Model 452 PTO mounted; 10 hp, Model 419 super custom mounted
Newport, blower Model 430 5 hp, mini Model 410 3 hp
Chain Saw, Model 610 3 SAE hp, Model 620 4 SAE hp, Model 650 6 SAE hp, Model 635 8 SAE hp, Model 660 7 SAE hp
Mower, sickle bar, 6.5 SAE hp, Model 520
Water Pump, 6.5 SAE hp, Model 801
Garden Tractor, Model 527 tiller 6.5 hp
Post Hole Digger, Model 812, 6.5 hp
Snow Blower, Model 813, 6.5 hp
Generator, Model 819, 110 volt
Engine, Model 272, 6.5 hp
Speedex Tractor Co., 367 N. Freedom St., Ravenna, Ohio 44266
Lawn & garden tractor, 8hp, 10hp, 13hp
Rotary mowers 36", 44", 50"
Spray Baby, Inc., 751 N. Edmonds Dr., Carson City, Nev. 89701
Seeders, hydraulic
Mulchers, hydraulic
Agricultural sprayers
Spraying Systems Co., North Avenue at Schmale Road, Wheaton, Illinois 60187
TeeJet, spray nozzles with interchangeable spray tips
Foam Jet, spray nozzles with interchangeable spray tips
Vee Jet, spray nozzles
GunJet, spray guns
FloodJet, spray nozzles
Pipe, irrigation
Irrigation systems, complete
Sprinklers
Standard Mfg. Co., 220—E. 4th St., Cedar Falls, Iowa 50613
Standard, golf course equipment
Stanley Hydraulic Tools, Div. of the Stanley Works, 13770 S.E. Ambler Road, Clackamas, Oregon 97015
Pneumatic tools
Sprinklers
Pruners, hydraulic
Pole pruning saws, chain & circle hydraulic
Chain saws, hydraulic
Alternator, hydraulic
Sump pump, hydraulic
Stihl American, Inc., 107 Bauer Dr., Oakland, N.J. 07436
Chain Saws, electric and gasoline powered
Stihl SG-17, blower/sprayer, back-pack gasoline powered
Stihl Cutquik, saw, circular cut-off for cement, stone, steel, pipes, etc.
Stihl earth auger and planting tool, gasoline powered
Stihl Brush-Cutter, brush and weed cutter, gasoline powered
Stihl Hedge-Trimmer, hedge trimmer, gasoline powered, trim hedges and small brush/trees
Stone Construction Equipment, Inc., 32 Main, Honeoye, N.Y. 14471
Stone, digger—12 volt, operates off of 12 volt system; 2" to 7" digger dirt augers for digging post holes and holes for trees, shrubs, etc.
Sudbury Laboratory, Inc., 572 Dutton Rd., Sudbury, Mass. 01776
Sudbury Soil Test Kits, designed to make “on-the-spot” tests for nitrogen, phosphorus, potash and acidity/alkalinity; simple to use “as easy as reading a thermometer.”
Sun-Mastr Corp., P.O. Box 31, Olathe, Kansas 66061
Safit-Shear, 74" and 90" flat mowers
Sun Mastr, mid-mount mowers; rotary cutters 60"-72"-84"; 60" and 72" rear-mount mowers; 3-gang and 5-gang reel mowers
Swan Hose Div.—Amerace Corp., P.O. Box 509, Worthington, Ohio 43085
Swan, garden hose, Industrial and maintenance hose

WEEDS TREES and TURF
Sweepster, 2810 Baker Road, Dexter, Michigan 48130
TCI, Inc., Box 249, Benson, Minn. 56215
Tecumseh Products, Co., Engine
Tallman Equipment Co., Inc., 3825 W. 31st St., Chicago, Wis. 53024
Illinois 61049
Tennant Maintenance Systems, 721 North Lilac Dr., Wisconsin 53246
Terrain King Corp., 4444 Center, Houston, Texas 77007
Tool box equipment
Towner Mfg. Co., P.O. Box 6096, Santa Ana, Calif. 92706

Swenson Spreader & Mfg. Co., P.O. Box 127, Lindenwood, Illinois 601049
Spreaders, gas, hydraulic
Thatcher, attachment for rotary mowers
Leaf Loader, trailer mounted

TCI, Inc., Box 249, Benson, Minn. 56215
Tyler, 2 to 8-ton pull type fertilizer spreaders; 15' to 45' anhydrous ammonia applicators
Herculift, 4-wheel drive rough terrain forklifts
Super Challenger, 4-wheel drive, 1 yard bucket loader

Tallman Equipment Co., Inc., 3825 W. 31st St., Chicago, Illinois 60623
Shears

Tecumseh Products, Co., Engine Div., 900 North St., Grafton, Wis. 53024
Tecumseh Engines, 2 to 18 hp, 4-cycle + 2-cycle, air and liquid cooled, single + twin cylinder
Tecumseh genuine parts
Peerless Gear Drives, transmission, transaxles, hydrostatic gear drives, right angle + T drives
Taylor Mufflers
SnowKing Engines

Teledyne Wisconsin Motor, 1910 South 53rd St., Milwaukee, Wisconsin 53246
Wisconsin, Wisconsin-Robin, Wisconsin-Hatz Diesel, heavy-duty, air-cooled internal combustion engines, 3—80 hp, single, two, three and four-cylinder
Tennant Maintenance Systems, 721 North Lilac Dr., Minneapolis, Minn. 55490
Hydraulic heavy-duty power sweeper for driveways, walks and maintenance areas covered with cement

Terrain King Corp., 4444 Center, Houston, Texas 77007
Terrain King, rotary mowers—4'-25'
Turner, flail mowers—(3-point and boom)
Slopemower, boom type mowers—31' reach

Thomas Equipment, Ltd., Centreville, New Brunswick, Canada
Mower, Sickle, attachment to front end loader

Thompson Manufacturing, 2251 E. 7th St., Los Angeles 90023
Turf Irrigation Sprinkler and Accessories, gear driven rotary turf irrigation sprinklers

Tork Time Controls, Inc., 1 Grove St., Mt. Vernon, N.Y. 10550
Tork, irrigation, automatic lawn sprinkler controls

The Toro Company, 8111 Lyndale Ave., So. Bloomington, Minn. 55420
Hevi-Duty, mower, rotary (hand or self-propelled) 21 inch and 25 inch
Whirlwind, mower, rotary, 31-inch

Trojan, 60-inch cut
Professional, mower, triplex reel, 70-inch, 76-inch and 84-inch cut
Greenmaster, mower, walk greensmower, 21-inch
Greensmaster 3, mower, triplex greensmower, riding
Spartan Gang, mower, 5, 7 or 9 bladed-formal and semi-formal turf
Landscaper 4, multi-purpose landscaping tool for seedbed preparation, seeding, fertilizing, also Model 6 Pro.
Rake-O-Vac, turf and hard surface sweeper
Parkmaster, 5-7-9 unit hydraulic mowing tractor
Roughmaster, 4 and 5 bladed rough area reel mowers
Toro Frames, reel mower transport and lift frames
Toro Turf Tractor, utility turf tractor
Sandpro, sand trap maintenance and grooming unit, all hydraulic
Groundsman 72 with 70 1/2-inch cut, riding rotary mower and other implements
Workmaster, utility vehicle
Groundsman 50 with 50 inch cut, riding rotary mower and other implements

Toro Irrigation Division, P.O. Box 489, Riverside, Calif. 92502
Automatic Controller, irrigation equipment, hydraulic or electric; 4, 8, 11, 23 station control and satellites
Automatic Remote Control Valves, 1/2-inch to 2-inch, hydraulic or electric
Pop Up Spray Sprinklers, 8-54 ft. diameter stream spray
Pop Up Rotary Sprinklers, 65-235 ft. diameter, valve in head, hydraulic or electric, 2-speed, gear driven
Shrub and Bubbler Sprinklers, adjustable, stream, flood, low angle
Boring Machine, 10 ft. and 16 ft. models
Trenching Machines, residential, light commercial, 2 inches wide, 9 inches deep
Quick Coupling Valves, standard, vinyl or with lock cover, valve range 3/8-inch to 1 1/8 inches
Impact Sprinklers, 1/2-inch to 1 3/4 inches threaded connection, part of full circle

Towner Mfg. Co., P.O. Box 6096, Santa Ana, Calif. 92706
Harrows, disks
Harrows, springtooth
Tool box equipment
Ditchers; slopers

Tradewinds, Inc., P.O. Box 1191, Tacoma, Washington 98401
 Holder, tractors, 4-wheel drive, diesel, 14 hp to 40 hp; tractor mounted sprayers, PTO pumps, complete with turbulent mistblowers, (all sizes from 22 gallons up); knapsack power sprayers (for mist, dust, granules, flamethrowers, etc.) world's only packsack sprayer with centrifugal pump

Travelrain Power Sprinkler Co., 239 No. Robertson Blvd., Wilmington, Delaware 19899

Lebanon bags it!
NITROFORM*
organic nitrogen
The economical nonleaching nitrogen that's great for turf, trees, shrubs, and evergreens, too.

Turf and Horticultural Products, Synthetics Dept.
Wilmington, Delaware 19999

*Registered trademark of Hercules Incorporated 57048-15
Beverly Hills, Calif. 90211
Travelrain Power Sprinkler, (irrigation) traveling sprinkler
Sharpomatic, drill & Tool sharpener (electric)

Tree-ject Company, Box 396, Waycross, Ga. 31501
Sprayers, hose end, complete power unit

Triumph Machinery Co., Willow Grove St., Hackettstown, N.J. 07840
Rakes, landscape
Thatchers, mower, vertical
Mowers, sickle bar; rotary, heavy-duty

Trojan Battery Company, 9440 Ann St., Santa Fe Springs, Calif. 90670
Trojan, storage batteries—electric golf car, automotive, commercial, truck, bus, and industrial chargers

Turf Service Laboratory, Inc., P.O. Box 1001, Laguna Beach, California 92652
Mowers, sickle bar; rotary, heavy-duty

Turf Vac Corporation, P.O. Box 4339, Long Beach, Calif. 90804
Turf Vac, self-propelled rider vacuum
Fairway Master, sweepers—18-25 hp with hydraulic drive systems, blower attachments, and hand pick-up hose attachments; and hydraulic lift dump available; towed units 4 1/2' to 10' wide, 10 1/2-25 hp or PTO; hydraulic lift dump and hand intake hoses available

Universal Motor Division, Medalist Industries, Box 2508, Oshkosh, Wisconsin 54901
Aquamaster Pumps, portable centrifugal pumps 1 1/2'' or 2'' such/disch., 3 hp gas engine or 1/2, 1/3, 1/4, 1/2, 2 hp electric motors, standard seal for water, corrosion resistant seal for fertilizer, herbicides, etc.
Universal electric generators and battery chargers. 1200-3500 watts and 12-32V. Portable

Up-Right Scaffolds, 1013 Pardee St., Berkeley, Calif. 94710
Scaffolds, portable, aluminum for tree trimming

Utility Body Co., 901 Gilmen, Berkeley, Calif. 94710
Buckets—aerial towers

Val-Jac Mfg. & Supply Co., Inc., 110 N. Park, Maize, Kansas 67101
Small truck compactor for parks and recreational areas

Valley Products Corporation, Box 668, Valley, Nebr. 68064
VPC Stump Cutter, 8 hp one-man tree stump remover

Vandermolen Corp., 119 Dorsa Ave., Livingston, N.J. 07039
Blower KWH, for leaves and debris, wheeled, 2-cycle engine
KWH Mistblower, back pack
Diadem Brush Chipper, for branches up to 3'', wheeled, PTO or skid models, 8 and 12 hp models
Bora KWH Mistblower, skid model, 110-gallon tank, 75-80 ft., reach fan power by rotary engine
Diadem Spreader/Seeder, broadcaster, PTO driven, 3-pt. hitch
Flykil, electric flykiller

Venable Sprinkler Sales, Inc., P.O. Box 1105, 3401 Conflans, Irving, Texas 75061
Pump-A-Matic, pre-built pump station for golf course, etc., irrigation
Pressure-Matic, booster pump unit to increase pressure of water in hydraulic system tubing to use potable water

Veri Products, P.O. Box 5129, Cardwell Station, Fresno, Calif. 93705
Scabbards for chain saws

Vermeer Manufacturing Company, P.O. Box 200, Pella, Iowa 50219
Stump Cutters, 12-65 hp, four models
Tree Spades, 4 models (trailer or mounted)
Log Chippers, 2 models

Vicon Farm Machinery, Inc., 5898 Poplar Hall Drive, Norfolk, Virginia 23502
Vicon, mower (disc), power harrow (reciplicatins) fertilizer spreader (pendulum), hay rake, (wheel type)

Viking Pump Co., 4th and Shuttle Sts., Cedar Falls, Iowa

Village Blacksmith, McGraw Edison Portable Electric Tool Division, 1200 East State St., Geneva, Illinois 60134
Village Blacksmith, garden cutting tools, electric chain saws, electric hedge trimmers, electric edger trimmers, electric cultivator, Curd Reels, "Blitz Fog" insect fogging devices, gas engine fogger, electric tree surgeon, post hole diggers and augers

Vineland Laboratories, Inc., 2285 E. Landis Ave., Vineland, New Jersey 08360
Proportioning systems

Vogel Tool & Die Corp., Stone Park, Illinois
Post hole drill

W-W Grinder, 2957 N. Market, Suite 169, Wichita, Kansas 67219
Shredder-Grinders, complete line of soil shredder-grinders for gardeners, nurseries, greenhouses, etc.; horsepowers ranging from 1 hp models to 30 hp models; available with gas engines, electric motors or less power; some models feature electric start gas engines

Waco Industries, Inc., P.O. Box 367, 749 Airways Blvd., Jackson, Tenn. 38301
Chain saws products

Waldon Manufacturing Co., 1200 Fisher Street, Charles City, Iowa 50616
Trailer Model Sprayer, exclusive sump trap, exclusive uni-stand, rear safety stand 200, 300, and 500-gallon cap.; built in nylon agitator
RA Side Mounted Sprayer, 400-gallon capacity; each tank valve controlled, 2-200 gallon tanks, custom fit mounting brackets, valve stand
3-Point Hitch Sprayer, 165, 200, or 300-gallon capacity, Cat. II hitch pins
Fiberglass Tanks (all above units), 10" x 20" fill hole; bullet shaped ends; built in agitators built in steel outlets; 1/4" steel sump outlet; double protection inner lining; lid with snap-over lock; special sump trap and anti-swirl baffle; continuous flow pump; sprays evenly over all terrain;
sprays to last drop
Index-O-Matic Washer, completely portable; semi-pneumatic tires; all-steel frame 5 or 25-gallon tank; 3 GPM pump; 1½ hp motor; fiberglass tank
Tri-Matic II, fiberglass tank; completely portable; all-steel frame 25-gallon tank; 3 GPM pump; 1½ hp motor; semi-pneumatic tires
Dutch Elm disease tree injector applicator, (3) gallon-pressure tank, nozzle injector assemblies, 60 lb. gauge, length of hose, hose shut-off, and driving tool

Waymark, 44 River St., Cortland, N.Y. 13045
Spreader, disc type
Sprayers, boom; complete power unit

Wayne Engineering Corp., 1st & Iowa Sts., Cedar Falls, Iowa 50613
Honey B, lightweight refuse packer for parks highway rest stops, etc.
Pup, pick-up refuse packer

Weather-Matic Division/Telsco Industries, P.O. Box 18205, Dallas, Texas 75218
Weather-matic, controls, electric valves, solenoids, rotary heads, spray heads, nozzles, accessories (irrigation equipment)

H. N. Webster Mfg., P.O. Box 1628, Sebring, Florida 33870
Webtermatic, irrigation, quick coupling riser valves sizes ½” to 1¼”

Weed Eaters, Inc., 5146 Richmond Ave., Houston, Texas 77027
Weedy, for commercial use: 3 hp, 2-cycle Tecumseh engine powers patented cutting head which employs “fishing line” to trim, edge and cut grass and weeds along chain link fences, trees, ditches, cemetery markers, culverts, etc., wt. 28 lbs.
Needle, ¾ hp permanent magnet motor—wt. 6½ lbs.; performs the same tasks as above with less punch

Welsh Mfg. Co., 9 Magnolia St., Providence, R.I. 02909
Respirators, for use in pesticide application
Ammonia respirators
Dust respirators
Goggles
Safety caps
First aid equipment

Western Products, 1234 N. 62nd St., Milwaukee, Wis. 53213
Western Snow Plow, truck mounted snowplow and controls

Westinghouse Electric Corp., P.O. Box 712, Redlands, Calif. 92373
Westinghouse, Electric golf cars

Wet Mfg. Co., Inc., 955 Elm St., Orange, Calif. 92667
Sprinkler irrigation equipment
Sprinkler head, gear driven rotary pop-up
Automatic controller, 7, 14, and 21 station
Remote control valve, electric ¼” thru 2” size
Boring tool, used for boring under walks, driveways etc.

Wheel Horse Products, Inc., 515 W. Ireland Rd., South Bend, Indiana 46614
Wheel Horse D-200 Automatic, 19.9 hp twin cylinder tractor; featuring—automatic transmission with “no belt” drive; front and rear 2,000 rpm PTO’s; category “O” three point hitch; Super Seat; sealed beam head and taillights; dual hydraulic lifts; independent disc turning brakes; 8-gallon fuel tank; cluster dials; 3-way safety interlock system; and a choice of four tire options
Wheel Horse D-180 Automatic, 18 hp twin cylinder tractor; featuring—automatic transmission with “no belt” drive; sealed head beam and taillights; hydraulic lift; 5¼-gallon fuel tank; cluster dials; two piece adjustable seat; front PTO; optional spined rear PTO; optional category “O” three point hitch; optional disc turning brakes; 3-way safety interlock system; and a choice of four tire options
Wheel Horse D-160 Automatic, 16 hp tractor; featuring—automatic transmission with “no belt” drive; front PTO; polyfoam seat; hydraulic lift; 5¼-gallon fuel tank; ammeter; many options; 3-way safety interlock system; and a choice of four tire options
Wheel Horse D-160 Automatic, 16 hp tractor; featuring—automatic transmission (hydrostatic-oil drive); hydraulic attachment lift; arm rests; 2-piece adjustable seat; spring seat suspension; ammeter; hour meter; 2-gallon fuel tank; utilized steel frame; head and taillights; friction disc PTO clutch; soft feel steering wheel; turf saver tires; and a 3-way safety interlock system
Wheel Horse C-160 8-speed, 16 hp tractor; featuring—heavy-duty all gear 8-speed transmission; two piece adjustable seat; ammeter; 2-gallon fuel tank; utilized steel frame; head and taillights; friction disc attachment clutch; soft feel steering wheel; turf saver tires; optional electric lift; and a 3-way safety interlock system
Wheel Horse C-120 Automatic, 12 hp tractor; featuring—automatic transmission (hydrostatic-oil drive); two-piece adjustable seat; spring seat suspension; ammeter; 2-gallon fuel tank; utilized steel frame; head and taillights; friction disc attachment clutch; soft feel steering wheel; turf saver tires; optional hydraulic lift; and a 3-way safety interlock system
Wheel Horse C-100 8-speed, 10 hp tractor; featuring—heavy-duty all-gear 8-speed transmission; utilized steel frame; head and taillights; friction disc attachment clutch; turf saver tires; optional electric lift; and a 3-way safety interlock system
Wheel Horse B-100 automatic, 10 hp tractor featuring utilized steel frame; friction disc attachment clutch; turf saver tires; optional hydraulic lift; and a 3-way safety interlock system

Right behind the spreader...or 20 feet to each side...your turf gets the same amount of fertilizer if you use a Vicon. Field tests have proven it.

Vicon uses an exclusive system...a spout oscillating at 540 times per minute. This gives a rectangular coverage pattern that eliminates the overlapping and missed spots you get with fan spreaders.

Vicon is quality constructed to last for years. Major parts are non-corroding polyester and stainless steel. Application rate is easily adjusted from 10 to 2500 pounds per acre.

Even lime is no problem for the Vicon. It handles lime, fertilizer, seed and chemicals. Six hopper capacities from 600 to 7000 pounds suit your course and budget.

Vicon has the accuracy that professional turf men are looking for. Write today.
Wheel Horse B-80 4-speed, 8 hp tractor featuring unitized steel frame; friction disc attachment clutch; turf saver tires; optional electric attachment lift; and a 3-way safety interlock system.

Wheel Horse D-Series Attachments; 60" rear mount mower; 48" side discharge mid-mount mower; 56" snow/dozer blade; 50" grader blade; 50" tiller; 36" aeration; 38" or 31" lawn sweeper; 32" lawn roller; 4-wheel wagon; 2-wheel dump cart; and a 48" snowthrower.

Wheel Horse C-Series Attachments; 48" side discharge mower; 42" side discharge mower; 36" side discharge mower; 36" rear discharge mower; 42" snowthrower; 42" snow/dozer blade; 40" grader blade; 36" tiller; 36" aerator; 38" or 31" lawn sweeper; 32" roller; 2-section cultivator; harrow; 32" disc; lawn vacuum; 4-wheel wagon; and a 2-wheel dump cart.

Wheel Horse B-Series Attachments; 36" side discharge mower; 36" rear discharge mower; 37" snowthrower; 42" snow/dozer blade; 40" grader blade; 36" aerator; 38" or 31" lawn sweeper; 32" lawn roller; 32" disc; 2-section cultivator; harrow; 36" tiller; 4-wheel wagon; and a 2-wheel dump cart.

Wheel Horse A-Series Attachments, for A-80 42" snow blade; 36" aerator; 38" or 31" lawn sweeper; 32" lawn roller; 4-wheel wagon; and a 2-wheel dump cart.

Willmar Mfg. Co., Willmar, Minn.

Spreader, pull-type, flotation tires, spreads up to 1 1/2 tons per load

Wilson Products Div., Ray-O-Vac Co., 2nd and Washington
Aves., Reading, Pa.

Masks, gas; dust
Respirators
Safety Equipment
Helmets

Wisconsin Marine, Inc., P.O. Box 28, Lake Mills, Wisconsin 53551

Bob-Cat, model 520-1, snow thrower, self-prop. 5 hp 20" 2-speed
Bob-Cat, model 520-2 snow thrower, self-prop., 5 hp 20" single speed
Bob-Cat, model 724-1 snow thrower, self-prop., 7 hp 24" 2 speed
Bob-Cat, model 724-2 snow thrower, self-prop., 7 hp 24" 2 speed
Bob-Cat, model 828-2 snow thrower, self-prop., 8 hp, 28"
Bob-Cat, model t-16-61, riding twin hydro mower, 16 hp 61 inches
Bob-Cat, model M-21 rotary lawn mower, 21 inch, engine options: 3.5 hp, 4 hp, 4 heavy duty, 5 H.D.
Bob-Cat, model M123-3.5 lawn trimmer, 12 inch, 3.5 hp

Wood Brothers, Inc., Hwy. 2 So., Oregon, Ill. 61061

RM 59, rear mounted rotary lawn mower; three blades cut a 5-foot swath; adapts to any standard 3-point hitch

Yardman, The Leisure Group, Inc., Jackson, Michigan

Snow throwers, tractors, 8-20 hp

Yazoo Mfg. Co., 3607 Livingston Rd., Jackson, Miss. 39216
Yazoo Master Mowers, rotary 20"-76"; walking, riding tillers, edgers

Year-A-Round Cab Corp. (Jari Div.), P.O. Box 2075, Mankato, Minnesota 56001
Jari Chief, 3 hp, 32" sickle
Jari Monarch, 4 hp, 36" sickle

York Modern Corporation, Mill and Watson St., Unadilla, N.Y. 13849
York, rakes; landscape and lawn grooming

Cross Reference Guide
To Manufacturers by Items

AERATORS
Brinly Hardy Co.
Hahn Inc.
Howard Rotator Co., Inc.
Jacobsen Mfg. Co.
F. D. Kees Mfg. Co.
Ryan, OMC-Lincoln
Simplicity Mfg. Co., Inc.
Wheel-Horse Products

AERIAL BUCKET ACCESSORIES
Plastic Techniques, Inc.

AERIAL BUCKET LIFTS
Asplundh Chipper Co.
Correct Mfg.
McCabe-Powers Body Co.
Mobile Aerial Towers, Inc.
Reach-All Manufacturing and Engineering Co.
Selma Trailer & Mfg. Co.

AERIAL PLATFORMS
Adventure Line Mfg. Co.
Up-Right Scaffolds

ARBOURIST SUPPLIES
American Arborist Supplies
Bartlett Mfg. Company
Creative Sales, Inc.
Hortiscape, Inc.
Karl Kuehnerling, Inc.
Product Development International
Safety Test & Equipment Co.

AUGERS
Contree Sales, Inc.
Ferti-Feeder
Hoffico, Inc.
Johnson's Industrial Supply Co.
Pitman Mfg. Co.
Village Blacksmith

AUGERS, EARTH
Allis-Chalmers Mfg. Co.
Baker Equipment Engineering Co.
Bartlett Mfg. Co.
Johnson's Industrial Supply Co.

AUXILIARY POWER UNITS
(See Generators)

BACKHOES
Allis-Chalmers
Arps Corp.
Charles Machine Works
Ford Tractor Operations, North America
Howard Rotator Operations, North America
International Harvester Co.
Massey-Ferguson, Inc.
(Industrial Products)
Schutt's Equipment Co.
Vermeer Mfg. Co.
Waldon, Inc.
<table>
<thead>
<tr>
<th>Category</th>
<th>Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUMIGANT APPLICATORS</td>
<td>John Blue Co., Inc. Red Ewald, Inc.</td>
</tr>
<tr>
<td>GENERATORS</td>
<td>Conaway, Inc. Friend Mfg. Corp. Howard Rotavator Co., Inc. Hydro Turf</td>
</tr>
<tr>
<td>GOGGLES</td>
<td>(Also see Masks, Face) American Optical Corp. Martindale Electric Co.</td>
</tr>
<tr>
<td>GOLF CARS (Also See Turf Vehicles)</td>
<td>Club Car, Inc. Cushman, OMC-Lincoln E-Z Go Car, Div. of Textron</td>
</tr>
<tr>
<td>GREENHOUSES</td>
<td>Simplex Mfg. Co.</td>
</tr>
<tr>
<td></td>
<td>Vicon Farm Machinery, Inc. Wheel Horse Products, Inc.</td>
</tr>
<tr>
<td>HEARING PROTECTORS</td>
<td>American Optical Corp. Safeine Products</td>
</tr>
<tr>
<td>HEATERS</td>
<td>Century Engineering Corp.</td>
</tr>
<tr>
<td>HOSES</td>
<td>Aeroquip Corporation American Hose &amp; Reel Co. Asplundh Tree Expert Co.</td>
</tr>
<tr>
<td></td>
<td>Black &amp; Decker Bright &amp; Products The Broyhill Co. Century Engineering Corp.</td>
</tr>
<tr>
<td></td>
<td>Contree Sales, Inc. Friend Manufacturing Corp. Hydro-Turf Larson Machine, Inc.</td>
</tr>
<tr>
<td>HYDRAULIC &amp; AIR POWERED TOOLS</td>
<td>Fairmont Hydraulics Stanley Hydraulic Tools Div., The Stanley Works</td>
</tr>
<tr>
<td>INCINERATORS</td>
<td>DriAll, Inc.</td>
</tr>
</tbody>
</table>

**Adelphi**

**Kentucky Bluegrass**

*Now Sets U.S. Government Standards for the Dark Green Color of All Future Bluegrasses!*

*Source: Plant Variety Protection Office, U.S. Dept. of Agriculture*

In 10 years of man-controlled parentage breeding and over 7 years of university and field testing, "Adelphi" has earned a top rating for overall performance. "Adelphi" offers the features most wanted in turf. Professionals and home gardeners, alike, are making it the most widely accepted and universally acclaimed bluegrass in 30 years.

For good looks throughout the entire growing season... excellent density... good disease resistance and tolerance to moderately close mowing, it's... MAN-MADE "Adelphi"... A FIRST IN TURF!

For Details Contact:

**J & L ADIKES, Inc.**
Jamaica, N. Y. 11423

**JONATHAN GREEN & SONS**
Kearny, N.J. 07032

**VAUGHAN'S SEED CO.**
Downers Grove, Ill. 60515

For More Details Circle (113) on Reply Card
Control your fungi problems

FROM TEE TO GREEN

Use Terraclor®

To Control Brown Patch

Terraclor soil fungicide is your best weapon against Rhizoctonia control—the fungus that contributes to the formation of Brown Patch in Southern turf grasses.

Terraclor is easy to apply in liquid or dry granular form. Usually one application at the first sign of disease is all it takes.

Be sure you have Terraclor on hand. It’s good assurance for healthy fairways and greens.

Write for complete information.

Mr. D. H. Sparks, Agricultural Division Olin, P. O. Box 991, Little Rock, Arkansas 72203

Please send me more information on Terraclor/Terraclor for a healthy turf.

Name

Address

City

State Zip

---

The rare bird in the business

Olin

For More Details Circle (119) on Reply Card
LOADERS, BOOM
Century Engineering Corp.
Deere & Co.
Dico Co., Inc.
Howard Rotator Co., Inc.
Pitman Mfg. Co.
Waldon, Inc.

LOADERS, SKID STEER
Clark Equipment Co.
Davis Mfg.
Deere and Co.
Erickson Corp.
International Harvester Co.
K-D Manufacturing Co.
Massey Ferguson Inc. (Industrial Products)
Melroe Division
TCI, Inc.

LOADERS, TRACTOR MOUNTED
Allis-Chalmers
Arps Corp.
Deere and Co.
Engineering Products Co.
Ford Motor Co., Tractor Div.
Giant-Vac Mfg. Inc.
International Harvester Co.
Massey-Ferguson, Inc.
Melroe Mfg. Co.
Schwartz Mfg. Co.
The Sun-Mastr Corp.
Vermeer Manufacturing Co.

LOG SPLITTERS
Lupton Tree Service
Olathe Mfg., Inc.

MARKERS, LINE
Fox Valley Marking Systems

MOWERS, FLAIL
BMB Company
Cooper Mfg. Co.
Deere and Co.
Excel Industries, Inc.
FMC Corp., Ag. Machinery Div.
Ford Motor Co., Tractor Div.
Friend Mfg. Corp.
Gravely Corp., Div. Clarke-Gravely Corp.
International Harvester Co.
Kinco Mfg.
Lakes Supply Co., Inc.
Massey-Ferguson, Inc.
Mathews Company
Mott Corporation
Slope Tractor, Inc.
Sun-Master, Corp.
Terrain King Corp.

MOWERS, REEL
Bunton Company
Cooper Mfg. Co.
Engineering Products Co.
Friend Mfg. Corp.
Hahn, Inc.

MOWERS, GREENS
Cooper Mfg. Co.
Hahn, Inc.
Jacobsen Mfg. Co.
National Mower Co.
The Toro Company

MISTBLOWERS, ELETTRIC
Root-Lowell Corp.

MISTBLOWERS, SELF-PROPELLED
Century Engineering Corp.
Solo Motors, Inc.
Tradewinds, Inc.

MISTBLOWERS, TRUCK-MOUNTED
The Broyhill Co.
Buffalo Turbine Ag. Equip. Co.
FMC Corp., Ag. Machinery Div.
Finn Equipment Co.
F. E. Myers & Bro. Co.
Solo Motors, Inc.
Vandermolen Corp.

MISTBLOWERS, NOZZLE PARTS
The Broyhill Co.
Buffalo Turbine Equipment Co.
Century Engineering Corp.
Delevan Mfg. Co.
Echo Chain Saw Div., Kioritz Corp.
of America
FMC Corp., Ag. Machinery Div.
F. E. Myers & Bro. Co.
Solo Motors, Inc.
Spraying Systems Co.

MOISTURE METERS
AgTronics Mfg. Co.
Howard S. Crane, Inc.
Harbor Industries, Inc.
Inrrometer Company
JLM Products & Design
Soilmoisture Equipment Corp.
Turf Service Laboratory, Inc.

MOWERS, REEL
Bunton Company
Cooper Mfg. Co.
Engineering Products Co.
Friend Mfg. Corp.
Hahn, Inc.

MOISTURE METERS
AgTronics Mfg. Co.
Howard S. Crane, Inc.
Harbor Industries, Inc.
Inrrometer Company
JLM Products & Design
Soilmoisture Equipment Corp.
Turf Service Laboratory, Inc.

MOISTURE METERS
AgTronics Mfg. Co.
Howard S. Crane, Inc.
Harbor Industries, Inc.
Inrrometer Company
JLM Products & Design
Soilmoisture Equipment Corp.
Turf Service Laboratory, Inc.

MOISTURE METERS
AgTronics Mfg. Co.
Howard S. Crane, Inc.
Harbor Industries, Inc.
Inrrometer Company
JLM Products & Design
Soilmoisture Equipment Corp.
Turf Service Laboratory, Inc.
MOWERS, ROTARY
Allis-Chalmers
Ariens Company
Austin Products, Inc.
Avco E-Zee Flow Div.
BMB Company
The Black & Decker Mfg. Co.
Amf Western Tool Division
Year-A-Round Cab Corp. (Jari Div.)

MOWERS, SICKLE BAR
Allis-Chalmers
BMB Co., Inc.
Deere and Co.
Ford Tractor Operations, North America
Friend Mfg. Corp.
International Harvester Co.
Jacobsen Mfg. Co.
Kinco Mfg.
Massey-Ferguson, Inc.
Simplicity Mfg. Co.
Slope Tractor, Inc.
Solo Motors, Inc.
Thomas Equipment Ltd.
Triumph Machinery Co.
Wheel Horse Products
Year-A-Round Cab Corp. (Jari Div.)

MOWERS, VERTICAL
(Also See Thatcher)
Artic Mizer Manufacturers, Inc.
BlueBird International, Inc.
Deere and Co.
E-Z Rake, Inc.
Giant-Vac Mfg., Inc.
Hahn, Inc.
International Harvester Co.
Jacobsen Mfg. Co.
F. D. Kinco Mfg. Co.
Kinco Mfg.
Parker Sweeper Co.
Ryan, OMC-Lincoln
Terrain King Corp.
Triumph Machinery Co.

MOWERS, REPLACEMENT PARTS
Allis-Chalmers
Ariens Company
Austin Products, Inc.
Deere and Co.
FM Corp., Side-Winder
Flymo Div., Keltec Inc.
Ford Motor Co., Tractor Div.
Friend Mfg. Corp.
Goodall Div.
Gravely Corp., Div. Clarke-Gravely
Hesston Corporation, Ind. Div.
Hydro-Turf
International Harvester Co.
Jacobsen Mfg. Co.
Lawn-Boy, OMC-Lincoln
Lehara Equipment Co., Inc.
Locke Mfg. Div. Stellar Lawn Care
MTD Products, Inc.
Massey-Ferguson
MCD Mfg.
McDonough Power Equipment, Inc.
Roof Mfg.
Ryan, OMC-Lincoln
M. J. Scott Co.
Simplicity Mfg. Co.
Speedex Tractor Co.
The Sun-Master Corp.
Terrain King Corp.
The Toro Company
Triumph Machinery Co.
Vicon Farm Machinery, Inc.
Wheel-Horse Products
Wisconsin Marine, Inc.
Wood Brothers, Inc.
Yazoo Mfg. Co.

MULCH BLOWERS
Bowie Industries, Inc.
Finn Equipment Co.
Reinco

NOZZLES
(See Spray Nozzles)

OIL STORAGE

PAINT, MARKING
Fox Valley Marking Systems

PARK EQUIPMENT

PIPE (See Irrigation Pipe)
Alcoua Aluminum Co. of America
Amoco Chemicals Corp.
Cast Iron Pipe Res. Assoc.
Cresline Plastic Pipe Co., Inc.
The Flintkote Co., Pipe Products Div.
Hydro-Turf
Ridge Plastics Co.

PIPE FITTINGS
Amoco Chemicals Corp.
Certain-Teed Products Corp.
Cresline Plastic Pipe Co., Inc.
Midnor Ind. Turf Div.
Maiden Ind. Turf Div.
R. L. Nelson Corp.
Plastilene, Inc.
R & G Sloane Mfg. Co.

PLAYGROUND EQUIPMENT

PLOWS, VIBRATORY
Charles Machine Works, Inc.
Jacobsen Manufacturing Co.
Vermeer Mfg. Co.

POST HOLE DIGGER
Austen Products, Inc.
Hoffco, Inc.
Fred A. Lewis Company
Solo Motors, Inc.
Stone Construction Equip., Inc.
Village Blacksmith

PROPORTIONING SYSTEMS
Contree Sales, Inc.
Vineland Laboratories, Inc.

PROTECTIVE CLOTHING
American Optical Co.
Friend Mfg. Corp.
Jomac Products, Inc.
Mine Safety Appliances Co.

PRUNERS
American Arborist Supplies
Asplundh Chipper Co.
Bartlett Mfg. Co.
Corona Clipper Co.
Fairmont Hydraulics
Fanno Saw Works
Friend Mfg. Co.
Jameson Corporation
Karl Kuehmerling, Inc.
Limb-Lopper Co., Inc.
Pitman Mfg. Co.
H. K. Porter, Inc.
Rowco Mfg. Co., Inc.
Safety Test & Equipment Co.
Seymour Smith & Son, Inc.
Stanley Hydraulic Tools, Div.
The Stanley Works
Stihl American, Inc.
Village Blacksmith

SEPTEMBER 1974
PUMPS
(Also See Sprayers, Complete Power Unit)
Ace Pump Corp.
Aurora Pump
Berkley Pump Company
John Blue Co.
Bowie Industries, Inc.
The Broyhill Co.
Century Engineering Corp.
Contree Sales, Inc.
Delavan Manufacturing Corp.
FMC Corp., Ag. Machinery Div.
Friend Manufacturing Corp.
Hydraulic Products Co., Inc.
Hydro Turf
Hypro, Inc.
ITT Marlow
Larson Machine, Inc.
F. E. Myers & Bro. Co.
Oberdorfer Pump Div.
Robco, Inc.
Root-Lowell Corp.
Solo Motors, Inc.
Universal Motor Co.
Venable Sprinkler Sales, Inc.
Viking Pump Company

PUMPS, CENTRIFUGAL
Ace Pump Corp.
Aurora Pump
Berkley Pump Company
L. L. Larson Machine, Inc.
Universal Motor Div., Medalist Ind.

PUMPS, DIAPHRAGM
Ace Pump Corp.

PUMPS, PISTON
L. L. Larson Machine, Inc.
Robco, Inc.

PUMPS, ROLLER
L. L. Larson Machine, Inc.

PUMPS, SUBMERSIBLE
Hydraulic Products Co., Inc.
ITT Marlow
Stanley Hydraulic Tools, Div.
The Stanly Works

PUMPS, TURBINE
Aurora Pump
Hydraulic Products Co., Inc.

RAKES, LANDSCAPING
Arps Corporation
Austin Products, Inc.
Brillion Iron Works, Inc.
Deere and Co.
E-Z Rake, Inc.
Ford Motor Co.
International Harvester Co.
Roseman Mower Corporation
Triumph Machinary Co.
York Modern Corp.

RAKES, ALL PURPOSE
Arps Corp.
Asplundh Chipper Co.
Austin Products, Inc.
Bartlett Mfg. Co.
BlueBird International, Inc.
Brillion Iron Works, Inc.
Coursigns, Inc.
Deere and Co.
Ford Motor Co., Tractor Div.
International Harvester Co.
F. D. Kees Mfg. Co.
Lely Corp.
Roseman Mower Co.
Ryan, OMC-Lincoln
Skaggs Turf Equipment Co.
Smithco, Inc.
The Toro Company
Vicon Farm Machinery, Inc.
York Modern Corp.

REELS, HOSE
American Hose & Reel Co.
FMC Corp., Ag. Machinery Div.
Friend Mfg. Corp.
Clifford B. Hannay & Son, Inc.
F. E. Myers & Bro. Co.

RESPIRATORS
American Optical Co.
Friend Mfg. Co.
Glendale Optical Co., Inc.
Mortindale Electric Co.
Mine Safety Appliances Co.
Safeline Products
Scott Aviation
The Vandermonen Co.
Welsh Mfg. Co.
Willson Products Div., Ray-O-Vac

ROCK PICKERS
(Also See Stone Pickers)
Armor Metal Products
William Bergman Company
Bridgeport Impale. Works, Inc.

ROLLERS, TURF
Brillion Iron Works, Inc.
Eric Go Mfg., Inc.
Ford Motor Co., Tractor Div.
Hadfield Sod Roller Co.
International Harvester Co.
Lakes Supply Co., Inc.
Roper Manufacturing Co.
Ryan, OMC-Lincoln
Simplicity Mfg. Co.
Wheel-Horse Products

ROOT-FEEDING RODS
Ross Daniels, Inc.
Hydroponic Chemical Co., Inc.

ROOT PRUNERS
Schutt's Equipment Co.

SAFETY BELTS AND SADDLES, TREE CLIMBERS
American Arborist Supplies
Asplundh Chipper Co.
Bartlett Mfg. Co.
Karl Kuekmerling, Inc.
Mine Safety Appliances Co.
Product Development International

SAFETY EQUIPMENT
American Optical Co.
Asplundh Chipper Co.
Bartlett Mfg. Co.
FMC Corp., Ag. Machinery Div.
Friend Mfg. Corp.
General Scientific Equip. Co.
Glendale Optical Co.
Jomac Products, Inc.
Karl Kuekmerling, Inc.
Mortindale Electric Co.
Mine Safety Appliances Co.
Product Development International
Safeline Products
Scott Aviation
The Vandermonen Co.
Welsh Mfg. Co.
Willson Products Div., Ray-O-Vac

SAWS, MANUAL
Bartlett Mfg. Co.
Corona Clipper Co.
The Fanno Saw Works
Friend Mfg. Corp.
Karl Kuekmerling, Inc.
Seymour Smith & Son, Inc.

SAWS, CHAIN, ELECTRIC
Beaird-Poulan Div., Emerson
Electric Co.
Campbell-Hausfeld Co.
Conaway, Inc.
DESA Industries, Inc.
Stuhl American, Inc.
Village Blacksmith

SAWS, CHAIN, GASOLINE
Allis-Chalmers Corp., Outdoor and Leisure Products
Beaird-Poulan Div., Emerson
Electric Co.
Campbell-Hausfeld Co.
Conaway, Inc.
DESA Industries, Inc.
Echo Chain Saw Div., Kioritz Corp. of America
Ford Tractor Operations, North America
Friend Mfg. Corp.
Hoffco, Inc.
Homelite
Husqvarna, Inc.
Jobu Chain Saws
Landcaster Pump & Mfg. Co., Inc.
Lombard Power Equipment
McCulloch Corp.
Omork Industries, Inc., Oregon
Saw Chain Div.
Partner Industries of America
Pioneer, OMC-Lincoln
Quadera Mfg. Inc.
Roper Corporation
Skil Corporation
Solo Motors, Inc.

Lakeshore bags it!
NITROFORM®
organic nitrogen

The slow-release nitrogen that helps turf keep its good looks without repeated fertilizing. Use it to save labor.

Turf and Horticultural Products, Syntheticcs Dept.
Wilmington, Delaware 19899
Registered trademark of Hercules Incorporated
For More Details Circle (141) on Reply Card

64 WEEDS TREES and TURF
New Davis Fleetline® 10+2

A low-cost trencher with Davis quality that's easy to move on the job and that trenches by itself without manhandling!

The new Fleetline 10+2 is the first new design in a compact 2-wheel drive trencher in over a decade! It gives you superior quality that you've come to expect from Davis. Its 10 hp Kohler air-cooled engine is forward so its weight keeps the digging boom in the ground—even in tough digging! No manhandling. The four-speed transaxle delivers equal torque to both wheels for straight trenches, and lets you select just the right digging speed for the soil conditions. The rigid guide wheel gives you superior control, so once the course is set, the incomparable Fleetline 10+2 digs by itself—no jostling you around! Controls are grouped together at the rear so you needn't roam around the machine to take command. It digs from 4" wide, 36" deep to 8" wide, 24" deep at speeds up to 10 fpm. It's narrow enough to go through standard yard gates, so it's perfect for work in congested areas, low-cost house drops, and utility lines. Notice how easy it tracks in transport. That's because the differential axle lets you steer without unlocking a hub! So see your Davis trencher dealer or write Davis Manufacturing for a little relief on your small trenching jobs!

Davis Manufacturing
Division of J I Case
A Tenneco Company
P.O. Box 1801
Wichita, Kansas 67201

The Fleetline 10+2 slips through yard gates to work in congested areas.

Low profile lets you see the trench, boom and auger from the rear, where you have total command of the machine.

doing something about it.

For More Details Circle (127) on Reply Card
To find out how good our Gold Star Digger really is, cut a hole in this page.

A good place to start is right over there at the corner of this coupon. Because the sooner you do, and the sooner you send in the coupon, the sooner your local Servis dealer can set up a demonstration.

The Gold Star Post Hole Digger & Utility Crane is one of the most useful combinations you can have.

It works fast. You can dig holes for fence posts, shrubs or trees, for example, with the standard 4' x 9" auger. Or you can use our optional 6" or 12" diameter augers.

There are also optional extenders to make the augers either 8" or 14" longer. And the points and cutting blades are replaceable.

But even with all that, you still have a rugged 1,500-pound capacity utility crane and a complete 3-year warranty.

The Gold Star fits all Category I standard three-point hitch tractors, but there are also hitch pins so you can use it on a Category II tractor.

Now, dig in and start cutting. Fast.

SERVIS
AUSTIN PRODUCTS, INC.* /Box 1590/Dallas, Texas 75221

Name ___________________________ Student? __________

Address ___________________________

Cty __________ State __________ Zip __________

*Formerly Servis Equipment Company

SAWS, CHAIN, HYDRAULIC
Fairmont Hydraulics
Friend Mfg. Corp.
Limb Lopper Co., Inc.
Stanley Hydraulic Tools, Div. The Stanley Works

SAWS, CHAIN, PNEUMATIC
DESA Industries, Inc.
Limb-Lopper Co., Inc.

SAWS, CIRCULAR, ELECTRIC
Allis-Chalmers Corp., Outdoor and Leisure Products
The Black & Decker Mfg. Co.
Friend Mfg. Corp.
Skil Corporation

SAWS, CHAIN, PARTS
Beard-Poulan Div., Emerson Electric Co.
Campbell-Hausfeld Co.
Grandberg Industries
McCulloch Corporation
Omark Industries, Inc., Oregon
Saw Chain Div.
Pioneer, OMC-Lincoln
Sabre Saw Chain
Skil Corporation
Stihl American, Inc.
Waco Industries, Inc.

SAWS, EARTH
Charles Machine Works, Inc.

SCAFFOLDS
Up-Right Scaffolds

SCABBARDS, SAW
Bartlett Mfg. Company
Tallman Equip. Co., Inc.
Veri Products

SCRAPERS
Austin Products, Inc.
BMB Company
Deere & Co.
Eversman Mfg. Co.
International Harvester Co.
Massey-Ferguson, Inc. (Industrial Products)

SCREENERS, SOIL
Lindig Mfg. Corp.
Royer Foundry & Machine Co.

SCYTHES
Echo Chain Saw Div., Kioritz Corp. of America
Hoffco, Inc.

SEEDERS, BELT TYPE
FMC Corp., Ag. Machinery Div.

For More Details Circle (146) on Reply Card

WEEDS TREES and TURF
SEEDERS, DISC-TYPE
Brillion Iron Works, Inc.
International Harvester Co.
The Toro Company
Vandermolen Export Co.

SEEDERS, HOPPER-TYPE
Avo Ezee Flow Div.
Brillion Iron Works, Inc.
Cyclone Seeder Co., Inc.
Deere & Co.
Engineering Product Co.
Gandy Co.
Herd Seeder Co., Inc.
Hydro-Turf
International Harvester Co.
Jacobsen Mfg. Co.
Lakes Supply Co., Inc.
L. L. Larson Machine, Inc.
Lawn Medici, Inc.
Lely Corporation
Parker Sweeper Co.
Vandermolen Corp.

SEEDERS, HYDRAULIC
Bowie Industries
Finn Equipment Co.
Hydro Turf
Reino, Inc.
Spray Baby
The Toro Company

SEEDERS, MOUNTED
Garber Seeders, Inc.

SEEDERS, PULL-TYPE
Garber Seeders, Inc.

SEEDERS, SOD
Brillion Iron Works, Inc.
Cyclone Seeder Co., Inc.

SHARPENER, CHAIN SAW
Foley Mfg. Co.
Granberg Industries

SHARPENER, MOWERS & CUTTERS
Foley Mfg. Co.
Travelrain Power Sprinkler Co.

SHEARS
Bartlett Mfg. Co.
Black & Decker
Corona Clipper Co.
Friend Mfg. Co.
Melnor Industries, Inc.
H. K. Porter, Inc.

Seymour Smith & Son, Inc.
Tallman Equipment Co., Inc.

SHREDDERS (Also See Chippers)
Billy Goat
E. L. Caldwell & Sons, Inc.
Deere & Co.
Engineering Products Co.
Ford Motor Co., Tractor Div.
F. D. Kees Mfg. Co.
Kemp Shredder Co.
Lindig Mfg. Co.
MTD Products, Inc.
Roto-Hoe Co.
Roer Foundry & Machine Co.
W-W Grinder

SNOW THROWER
Allis-Chalmers Corp., Outdoor and Leisure Products
J. I. Case Co., Outdoor and Leisure Products
Deere & Co.
Ferrari Tractors
Gravelly Corp., Div. Clarke-Gravelly
Hesston Corporation
International Harvester Co., Consumer Products
Jacobsen Mfg. Co.
Lakes Supply Co., Inc.
Massey-Ferguson, Inc.
Maxey Mfg. Co., Inc.
Monarch Mowers, Inc.
The Toro Company
Wheel-Horse Products
Wisconsin Marine, Inc.
Yardman, The Leisure Group, Inc.

SOD CUTTERS
Big Brute Turf Cut
Bowie Industries, Inc.
Brouwer Turf Equipment, Ltd.
Jacobsen Mfg. Co.
Ryan, OMC-Lincoln

SOD HARVESTERS
Beck Mfg. Company
Brouwer Turf Equipment Ltd.
Nunes Mfg.

SOIL TESTERS
Contree Sales, Inc.
Howard S. Crane, Inc.
Harbor Industries, Inc.
Hydronomic Chemical Co., Inc.
Soilmoisture Equipment Corp.
Sudbury Laboratory, Inc.

SPADE, TREE (Also See Tree Movers)
CareTree Systems
Vermeer Mfg. Co.

SPIKERS
Hahn, Inc.
Jacobsen Mfg. Co.
Power Spike Mfg. Co.
Ryan, OMC-Lincoln
Smithco, Inc.

SPRAY BOOMS
Amchem Products, Inc.
The Broyhill Co.
Century Engineering Corp.
Contree Sales, Inc.
red Ewald, Inc.
FMC Corp., Ag. Machinery Div.
Friend Mfg. Corp.
L. L. Larson Machine, Inc.
F. E. Myers & Bro. Co.
Papec Machine Co.
Root-Lowell Corp.
Walsh Manufacturing Co.

SPRAY GUNS
The Broyhill Co.
Century Engineering Corp.
Contree Sales, Inc.
Delavan Mfg. Co.
FMC Corp., Ag. Machinery Div.
Foamspary Chemicals, Inc.
Friend Mfg. Corp.
W. L. Hamilton Co.
L. L. Larson Machine, Inc.
Melnor Industries, Inc.
F. E. Myers & Bro. Co.
Rout-Lowell Corp.
Spraying Systems Co.
Walsh Manufacturing Co.

SPRAY NOZZLES, COMPLETE
Amchem Products, Inc.
Bete Fog Nozzle, Inc.
The Broyhill Co.

NEW SHORT-FRAME
CARETREE TRANSPANTER
IMPROVED - MANEUVERABILITY
- ACCESS
- VISIBILITY
- BALANCE
- SPEED
FOR CLOSE-SPACED NURSERY AND LANDSCAPING OPERATIONS
CARETREE SYSTEMS
BOX 347, WORTHINGTON, OHIO 43085 Tel. (614) 846-2665

SEPTEMBER 1974 For More Details Circle (145) on Reply Card
BUFFALO TURBINE EQUIPMENT CO.
CENTURY ENGINEERING CORP.
CONTREE SALES, INC.
DELAVAN MFG. CO.
FOAMSPRAY CHEMICALS, INC.
W. L. HAMILTON CO.
H. D. HUDSON MFG. CO.
L. L. LARSON MACHINE, INC.
MELNOR INDUSTRIES
F. E. MYERS & BRO. CO.
PAPPEL MACHINE CO.
ROOT-LOWELL CORP.
SPRAYING SYSTEMS CO.
WALSH MFG. CO.

SPRAY NOZZLES, DISKS
The Broyhill Co.
Century Engineering Corp.
Delavan Mfg. Co.
Friend Mfg. Corp.
L. L. Larson Machine, Inc.
F. E. Myers & Bro. Co.
Spraying Systems Co.
Vandermolen Co.
WALSH MFG. CO.

SPRAY NOZZLES, WHIRLS
The Broyhill Co.
Century Engineering Corp.
Delavan Mfg. Co.
Friend Mfg. Corp.
L. L. Larson Machine, Inc.
F. E. Myers & Bro. Co.
Spraying Systems Co.
WALSH MFG. CO.

SPRAY-SLEEVE
Becco Products Co.

SPRAYERS, BIFLUID
The Broyhill Co.
Buffalo Turbine Equip. Co.
Red Ewald, Inc.
FMC Corp., Ag. Machinery Div.
Fimco Equipment Co.
Friend Mfg. Corp.

SPRAYERS, BOOM
Amchem Products, Inc.
John Blue Co., Inc.
The Broyhill Co.
Century Engineering Corp.
Contree Sale, Inc.
Cushman, OMC-Lincoln
Deere & Co.
Red Ewald, Inc.
FMC Corp., Ag. Machinery Div.
Fimco, Inc.
Friend Mfg. Corp.
Hahn, Inc.
International Harvester Co.
L. L. Larson Machine, Inc.
F. E. Myers & Bro. Co.
Pappec Machine Co.
Root-Lowell Corp.
WALSH MFG. CO.
WAYMARK

SPRAYERS, CART OR WHEELBARROW TYPE
Amchem Products, Inc.
The Broyhill Co.
Buffalo Turbine Ind. Equip. Co.
Century Engineering Corp.
Chapin, R. E., Mfg. Works, Inc.
Deere & Co.
Red Ewald, Inc.

SPRAYERS, COMPLETE POWER UNIT
(Also See Pumps)
Joh ezue Co., Inc.
Bowie Industries, Inc.
The Broyhill Co.
Buffalo Turbine Ag. Equip Co.
Century Engineering Corp.
R. E. Chapin Mfg. Works, Inc.
Contree Sales, Inc.
Cushman, OMC-Lincoln
Deere & Co.
Echo Chain Saw Div., Kioritz Corp.
of America
Red Ewald, Inc.
FMC Corp., Ag. Machinery Div.
Ferrari Tractors
Fimco, Inc.
Friend Mfg. Corp.
Hub States Corporation
Hydro Turf
Hypro Div., Lear Siegler, Inc.
L. L. Larson Machine, Inc.
Lawn Medic, Inc.
Leigh Products, Inc.
Lockwood Corporation
London Fog Company
F. E. Myers & Bro. Co.
Parco Products Co.
Public Health Equip. & Supply Co.
Robco, Inc.
Root-Lowell Corporation
Smith & Co., Inc. D. B.
Smithco, Inc.
Solo Motors, Inc.
Spray Baby, Inc.
Tradewinds, Inc.
Tree Ject Company
The Vandermolen Co.
WALSH MFG. CO.
WAYMARK
Wayne Engineering Corp.

SPRAYERS, COMPRESSED AIR
R. E. Chapin Mfg. Works, Inc.
Curtis-Dyna Products Corp.
Red Ewald, Inc.
L. L. Larson Machine, Inc.
Parco Products Co.
Public Health Equip. & Supply Co.
Root-Lowell Corp.

SPRAYERS, HAND
Bartlett Mfg. Co.
Broyhill Co.
Buffalo Turbine Ag. Equip. Co.
Century Engineering
R. E. Chapin Mfg. Works, Inc.
Contree Sales, Inc.
Deere & Co.
Friend Mfg. Co.
L. L. Larson Machine, Inc.
Leigh Products, Inc.
MELNOR INDUSTRIES, INC.
Parco Products Co.
Root-Lowell Corp.
Solo Motors, Inc.
Tradewinds, Inc.
The Vandermolen Co.
WALSH MFG. CO.
Lift trucks, backed by innovative engineering and quality control, assure you of extra years of satisfactory service performance. Both Forestry and General Service bodies are on regular production schedules. LR Series Models come in 40-, 42-, 45- and 50-feet. All booms are fully insulated and operated by a high pressure hydraulic system with controls mounted on the Pylon Mast and in the basket for maximum safety and efficiency. When you invest in one or a fleet of our aerial lift trucks, you are assured of good service from the aerial device and from the people who build it. ASPLUNDH CHIPPER CO., a division of Asplundh Tree Expert Co., 50 E. Hamilton St., Chalfont, Pa. 18914.

The famous Asplundh chipper is available with all our aerial device units if so desired. 12 inch or 16 inch models are in continuous production.

COMPLETE THE ATTACHED COUPON FOR MORE INFORMATION ON ASPLUNDH LIFT TRUCKS

Asplundh Chipper Co.
50 E. Hamilton Street
Chalfont, Pa. 18914

☐ Please send specification sheet
☐ Please contact me, I'm interested

NAME ____________________________

COMPANY ____________________________

ADDRESS ____________________________

SIGNED ____________________________

SIGNATURE ____________________________

TITLE ____________________________

Street City State Zip

For More Details Circle (124) on Reply Card
SPRAYERS, HOSE END
Amchem Products, Inc.
Bar-Way Mfg. Company
Broyhill Co.
Century Engineering Corp.
F. E. Chapman Mfg. Works, Inc.
FMC Corp., Ag. Machinery Div.
Friend Mfg. Co.
Hub States Corporation
L. L. Larson Machine, Inc.
Leigh Products, Inc.
Melnor Industries, Inc.
F. E. Myers & Bro. Co.
Tree Ject Company
Walsh Mfg. Co.
Wayne Engineering Corp.

SPRAYERS, KNAPSACK
Bartlett Mfg. Co.
Buffalo Turbine Ag. Equip. Co.
Echo Chain Saw Div., Kioritz Corp.
of America
Friend Mfg. Co.
Parco Products Co.
Public Health Equip. & Supply Co.
Robco, Inc.
Root-Lowell Corp.
Solo Motors, Inc.
Stith American, Inc.
Tradewinds, Inc.
Vandermonde Co.

SPRAYERS, DISC-TYPE
L. L. Larson Machine, Inc.
The Vandermonde Co.
Waymark

SPRAYERS, HOPPER-TYPE
Arctic Mizer
Avco Ezee Flow Div.
John Blue Co.
Cushman, OMC-Lincoln
Deere & Co.
Ford Tractor Operations,
North America
Gandy Co.

Great Lakes Chemical Div.
Herd Seeder Co., Inc.
Highway Equipment Co.
International Harvester Co.
F. D. Kees Mfg. Co.
L. L. Larson Machine, Inc.
Lely Corp.
Ryan, OMC-Lincoln
Simplex Mfg. Co.
Swenson Spreader & MFG. Co.
TCI, Inc.
Vandermonde Corp.
Vicon Farm Machinery, Inc.
Willmar Mfg. Co.

SPREADER, LIQUID
Amchem Products, Inc.
TCI, Inc.

SPRIGGERS
Bermuda King Co.
Bowie Machine Works

SPRINKLERS
(See Irrigation)

STENCILS, MARKING
Fox Valley Marking Systems
M-B Company

STONE PICKER
(Also See Rock Picker)
Armor Metal Products
William Bergman Company
Bridgeport Imple. Works, Inc.
Lockwood Corp.

STREAMERS
Hypro Division, Lear Siegler, Inc.

STRAINERS
Hypro Division, Lear Siegler, Inc.

STRAINSERS, SUCTION

STUMP CUTTER/REMOVER
Arps Corp.
FMC Corp., Sweeper Div.
Hesston Corp., Lawn Equipment
Div.
International Harvester Co.
Karl Kuehmerling, Inc.
Levco Mfg., Inc.
Olath Mfg., Inc.
Valley Products Corp.
Vermeer Mfg. Co.

SWEEPERS, LAWN
(Also See Broom, Vacuum)
Billy Goat Industries, Inc.
BlueBird International, Inc.
Clark Div., Clarke-Gravely Corp.
Deere & Co.
FMC Corp., Sweeper Div.
International Harvester Co.
Jacobson Mfg. Co.
M-B Company
Mars Industries, Inc.
Mathews Company
Melroe Mfg. Co.
Mid-State Metal Casters & Mfg. Co.
Nunes Mfg.
Parker Sweeper Co.
Ryan, OMC-Lincoln
Sweepster, Jenkins Equip. Co.
Tennant Maintenance Systems
The Toro Company
Turf Vac Corp.
Wheel Horse Products, Inc.

TAILGATES, LIFTING
Adventure Line Mfg. Co.
S & H Industries, Inc.

TANKS, SPRAY
John Blue Co.
The Broyhill Co.
Century Engineering Corp.
Contree Sales
E. B. Ewald, Inc.
FMC Corp., Ag. Machinery Div.
Fibre Glass Products
Friend Mfg. Corp.
Hemco Corporation
Inject-O-Meter Mfg. Co.
L. L. Larson Machine, Inc.
Leigh Products, Inc.
F. E. Myers & Bro. Co.
Papee Machine Co.
Raven Industries
Root-Lowell Corporation
Walsh Mfg. Co.

THATCHERS
(See Mowers, Vertical)
Arctic Mizer
Arps Corporation
BlueBird International, Inc.
E-Z Rake, Inc.
Giant-Vac Mfg., Inc.
Johnson Hydraulic Equip., Div. Arps Corp.
F. D. Kees Mfg. Co.
Parker Sweeper Company
Ryan, OMC-Lincoln
Swenson Spreader & Mfg. Co.
Triumph Machinery Co.

TILLERS
Allis-Chalmers
Ariens Co.
Auto Hoe, Inc.
J. I. Case, Outdoor Power
Equip. Div.
Conaway, Inc.
Contree Sales, Inc.
Deere & Co.
Engineering Products Co.
FMC Corp., Ag. Machinery Div.
FMC Corp., Outdoor Power
Equip. Div.

FMC Corp., Side-Winder
Ferrari Tractors
Ford Motor Co., Tractor Div.
Gravely Corp., Div. Clarke-Gravely
Howard Rotator Co., Inc.
International Harvester Co.
Jacobsen Mfg. Co.
Lakes Supply Co., Inc.
Lely Corp.
Massey-Ferguson, Inc.
MTD Products, Inc.
Roseman Mower Corp.
Roto-Hoe Co.
Simplicity Mfg. Co.
Solo Industries, Inc.
Village Blacksmith
Wheel-Horse Products
Yazo Mfg. Co., Inc.

TIRES
Dunlop Tire & Rubber Corp.

TOOLS, HAND, HYDRAULIC,
PNEUMATIC
Black & Decker Co.
Deere & Co.
Friend Mfg. Corp.
F. D. Kees Mfg. Co.
Limbo Lopper Co., Inc.
H. K. Porter, Inc.
Seymour Smith & Son, Inc.
Village Blacksmith

TOOL BOXES, PICKUP
(See Chests, Tool)

Regal Chemical bags it!

NITROFORM*
organic nitrogen

The nitrogen that pampers
delicate turf. Feeds slowly
instead of causing surges
of growth that can cause
stress.

Herelules
The nitrogen that pampers
delicate turf. Feeds slowly
instead of causing surges
of growth that can cause
stress.

Turf and Horticultural Products, Synthetics Dept.
Wilmington, Delaware 19899

For More Details Circle (142) on Reply Card
Hesston Front Runner® GMT...
really ahead of the times!

Made-over or make-do equipment just won't do
the professional job of groundskeeping you want the
year around. This one performs in all seasons: mowing
grass...vacuuming lawns...clearing snow...moving
earth. And it performs far more efficiently than a
scaled-down farm tractor.

The Front Runner, built specifically for grounds
maintenance, is a tough, gutsy tractor with front-
wheel hydrostatic drive and hydraulically controlled
front-mounted attachments. Its top features? Articu-
lated steering and vacuum pickup. The center pivot
lets you mow easily around trees and shrubs, along
curving walks and drives—usually in a single pass. An
integrated vacuum pickup attachment to mower
heads is self contained—it deposits trimmings in the
tractor's built-in carryall. If you do need to stop and
back up, there's no bulky trailer in the way! Your
speed is infinitely variable from 0 to 11 mph.

Conventional solid frame
garden tractor with belly-
mounted mowers can't match
the easy maneuverability and
up-close cut of the Front
Runner.

The Front Runner GMT is
available in three models—
16, 18 and 19.8 hp. Choose
from 48", 60" and giant
80" batwing mower heads.
All attachments fit all mod-
els so you can get the capa-
bilities and power most ef-
ficient for you. Send for
color literature that in-
cludes specifications on all
three models.

Hesston Front Runner with
exclusive articulated steer-
ing bends in the middle for
easy maneuverability around
obstacles in close quarters.

For More Details Circle (126) on Reply Card
### TRACTORS, 151 and up HP
- Deere & Co.
- Ford Tractor Operations
- International Harvester Co.
- Massey-Ferguson, Inc.
- Waldon, Inc.

### TRACTORS, CRAWLERS
- Allis-Chalmers
- Deere & Co.
- International Harvester Co.

### TRAILERS
- Beatty Trailers
- John Blue Co.
- The Champion Co.
- Clark Equipment Trailer Div.
- Deere & Co.
- Fayette Division, Dayton-Walther Corp.
- Ginther Equipment Corp.
- Harvestall Industries, Inc.
- Lakeside Mfg. Corp.
- Lawn Medic, Inc.
- Magline, Inc.
- Maxey Mfg. Co., Inc.
- Miller Tilt-Top Trailers, Inc.
- R.A.M Industries, Inc.
- Rogers Bros.
- Selma Trailer and Mfg. Co.
- The Snow Company
- Wheel Horse Products, Inc.

### TRASH COMPACTORS
- Piqua Engineering, Inc.

### TREE INJECTORS
- Creative Sales
- Ferti-Feeder
- Tree-Lect Company
- Walsh Mfg. Co.

### TREE MOVERS (See Spade, Tree)
- CareTree Systems

### TRASH COMPACTORS
- Piqua Engineering, Inc.

### TREE MOVERS (See Spade, Tree)
- CareTree Systems

### UNDERWATER WEED HARVESTER
(See Aquatic Weed Harvester) 

### UNDERWATER WEED RAKE
- Air-Lec Industries, Inc.
- Aquamarine Corporation
- Mud Cat, Div. of National Car Rental
- The Vandermolen Co.

### VACUUMS
- Arctic Mizer
- Ariens Co.
- Billy Goat Industries, Inc.
- Clarke Div., Clarke-Gravely Corp.
- Conaway, Inc.
- Deere & Co.
- E-Z Rake, Inc.
- Giant-Vac Mfg., Inc.
- MTD Products, Inc.
- Nunes Mfg.
- Parker Sweeper Co.
- Rego Div. Golecnda Corp.
- Ryan, OMC-Lincoln
- Simplicity Mfg. Co., Inc.
- Tennant Maintenance Systems
- Turf Vac Corp.
- Wheel-Horse Products

### VACUUMS
- Arctic Mizer
- Ariens Co.
- Billy Goat Industries, Inc.
- Clarke Div., Clarke-Gravely Corp.
- Conaway, Inc.
- Deere & Co.
- E-Z Rake, Inc.
- Giant-Vac Mfg., Inc.
- MTD Products, Inc.
- Nunes Mfg.
- Parker Sweeper Co.
- Rego Div. Golecnda Corp.
- Ryan, OMC-Lincoln
- Simplicity Mfg. Co., Inc.
- Tennant Maintenance Systems
- Turf Vac Corp.
- Wheel-Horse Products

### VALVES
(Also See Irrigation Valves)
- Aqua-Dial
- Hypro Division, Lear Siegler, Inc.
- Inject-O-Meter Mfg. Co.

### VALVE BOXES
- Ametek, Plymouth Plastics Div.

### VERTICAL SLITTER, TURF
- BlueBird International, Inc.
- Ryan, OMC-Lincoln

### VIBRATORY PLOWS
- Charles Machine Works
- Davis Mfg.
- Century Engineering Corp.
- Fimco, Inc.
- Walsh Mfg. Co.
- Wayne Engineering Corp.

### WASHERS, HIGH PRESSURE
- Charles Machine Works
- Davis Mfg.
- Century Engineering Corp.
- Fimco, Inc.
- Walsh Mfg. Co.
- Wayne Engineering Corp.

### WEED HARVESTER
- Weed Eaters, Inc.

### WELDERS
- American Lincoln Corp.

### WINCH
(Also See Hoist)
- Fairmont Hydraulics
- Hoffco, Inc.
- Ideal Crane Div.
- International Harvester Co.
- Fred A. Lewis Company
- Maasdam Pow'r Pull, Inc.
Six New BANVEL® Pre-Mix Combinations
Added To The BANVEL® Herbicide Line.

Banvel pre-mix combinations containing 2,4-D and 2,4,5-T are available in either oil or water soluble formations, lets you eliminate selectively tough brush, vines and broadleaf weeds that other herbicides often miss.

With this choice, the herbicide can be matched to type of vegetation, season, location, soil type, topography, environment, and other considerations. See your Velsicol representative or herbicide applicator for details.

Why Banvel is the 3 E's Herbicide

EFFICACY—BANVEL herbicide is systemic—it translocates throughout the entire plant killing leaves, stems and roots. Broad-spectrum BANVEL gets the hard-to-kill vegetation.

ECONOMY—Long-lasting BANVEL herbicide offers low cost. Often one application per season is all that is required for weed and vine control. Brush can be controlled for several growing seasons, with a 3- to 5-year root kill.

ECOLOGY—BANVEL has relatively short persistence in the soil. It has established tolerances for many food crops and milk. BANVEL is not harmful to animals eating foliage.

For information, fill in blanks below.

I am interested in controlling (vegetation) on (place)

Please send sample labels and information to:

Name ____________________________
Title ____________________________
Company ____________________________
Street or Box ____________________________
City ____________________ State ______ Zip ______

For More Details Circle (104) on Reply Card
ALGAETROL-76: Thompson-Hayward Chemical Co., Kansas City, Kan.

This algaecide is registered for use in swimming pools, lakes and fish hatcheries, rivers, irrigation ditches, and potable and waste water reservoirs. Treated areas may be used immediately for fishing, swimming, watering or irrigation. The algaecide comes concentrated, in quarts or gallons, and is applied by using hand or power sprayer. Initial treatment should be made when algae first becomes visible and water temperature is above 60 degrees F. Subsequent doses will prevent regrowth, according to the manufacturer. For more details, circle (705) on the reply card.

T-300A ROOT CUTTER: Vermeer Manufacturing Co., Pella, Iowa

New root cutter attachment for Vermeer’s T-300A trencher features replaceable, carbide-tipped cutting teeth, mounted on 40-inch diameter wheel. Severs roots down to 18 inches below the surface. The unit’s compact design — only 46 inches wide — permits operator to travel down sidewalks on rubberized 10-inch crawler tracks with independent hydraulic track drive. Offset design, along with an 18-inch cutting wheel clearance, permits the machine to cut roots along curbing while operating at roadway level. For more details, circle (706) on the reply card.

CLAMP-TITE: Zip-Penn, Inc., Erie, Pa.

This new vise holds chain saw firmly and securely; frees both hands, allows you to sharpen chain, clean air filter, adjust carburetor or perform other service requirements. Vise screws into a tree stump; the jaws clamp the guidebar and hold the saw in such a position that the chain can be moved freely around the bar. Made of welded steel, the Clamp-tite weighs 2¾ pounds. The vise can also be used to fasten an axe for two-handed sharpening. For more details, circle (707) on the reply card.

ATROPEN AUTO-INJECTOR: Survival Technology, Inc., Bethesda, Md.

This insecticide poison treatment kit has been developed for use wherever organophosphorus or carbamate insecticides are stored, transported, or used. The treatment kit has five prefilled automatic syringes (Atropens) containing the antidote atropine (2 mg. atropine each), plus complete instructions and a training syringe. The kit permits immediate painless treatment without seeing a needle. For more details, circle (708) on the reply card.
ROBERT D. BLACKBURN, appointed president of Florida Aquatic Weed Control, Inc. He was formerly in charge of the Aquatic Plant Management Laboratory, USDA. ELROY TIMMER, also formerly with USDA, appointed vice president of operations of Florida Aquatic Weed Control, Inc.

C. M. GRAU, promoted to senior vice president of Agrico Chemical Co.

PAUL G. REGAN, named general manager of Lawn-Boy/Pioneer Distributors, Inc., a subsidiary of Outboard Marine Corp. (OMC).

DOUGLAS H. CREECY, appointed division advertising manager for the agricultural chemical division of Diamond Shamrock Chemical Co. Creecy will be responsible for the advertising and sales promotion activities of the division.

HAROLD R. RICHARD, selected to direct the Navy's soil and water conservation (land management) program, Alexandria, Va.

GEORGE F. STOVER, appointed railroad vegetation control specialist, Velsicol Chemical Corp.

JAMES H. KELLER, promoted to vice president, operations, of Hahn, Inc. Keller will be in charge of the entire manufacturing operation as well as information systems and corporate planning. WAYNE POKORNEY, promoted to director of operations planning and information systems for Hahn, Inc.

BUEL J. RODGERS, appointed agricultural marketing manager of the agricultural machinery division, FMC Corp.

JERRY L. FRAGNOLI, appointed regional sales manager for Telsco's Weather-matic Division Pacific Northwest territory.

RALPH D. RIPLEY, appointed vice president/regional manager of the North Central Region of Thompson-Hayward Chemical Co. In another company move, CHARLES P. JENSEN, named new branch manager at The Atlanta distribution center.

FRED SCALZO, joined Thompson Sorinkler Co. and has marketing responsibility primarily in the western states.

JOHN M. POPE, appointed as director, corporate marketing, of The Toro Co. Pope will be responsible for overall corporate marketing strategy, distribution planning and corporate communication. N. M. (BUDDY) ELLISON, appointed southeastern sales manager for Toro.

And, Jacklin Seed Company built its reputation for quality with top performance in the field year after year. Jacklin is your reliable answer to seed performance. When you order seed, specify JACKLIN SEED.

JACKLIN PRODUCES:
Merion, 0217® Fylking, Glade, Cheri, Nugget, S-21, Newport, Delta, Geary, Park, Six, and Troy Kentucky bluegrass; Rathdrum and Reubens Canada bluegrass; Norlea Perennial ryegrass, Public and private varieties of Creeping Red, Nova rubra, Chewings, and Hard fescues.

And has produced on a contract basis: Pennfine, N.K. 100, N.K. 200 and Pelo Perennial ryegrass. For these quality Jacklin seeds see your local wholesale seed distributor. Jacklin is also a prime contract producer of: Warren's A-34, O.M. Scott's Windsor and Adelphi Kentucky bluegrass.

Jacklin has built a reputation of fine quality and service for over 30 years. You can count on purity of content, high quality and sure germination.

*Available only through breeder and owner outlets.
Any crew can transplant one tree...but only Vermeer Tree Spades transplant a forest

You're looking at the profit end of a low-cost, high-production tree transplanting program—with "The Diggin' Dutchman's" TS-44A Tree Spade from Vermeer. Compare it with a whole crew of laborers and you'll see what we mean. The TS-44A requires no coffee breaks...no lunch hours...no overtime wages...just an occasional tank of gas to keep its hydraulically-operated spades digging, balling and transplanting a forest of trees up to 4" in diameter. Saves you thousands of dollars annually because one man can handle the entire job in minutes. Interested? Write "The Diggin' Dutchman" for all the facts.

...also compare Vermeer's complete line of labor-saving Stump Cutters.

THE DIGGIN' DUTCHMAN
VERMEER TREE EQUIPMENT DIVISION
7209 NEW SHARON RD. PELLA, IOWA 50219

insect report

TURF INSECTS

FALL ARMYWORM
(SPODOPTERA frugiperda)

ARKANSAS: First economic infestation of season reported on Coastal Bermuda grass at Magnolia, Columbia County.

TREE INSECTS

SPRUCE BUDWORM
(Choristoneura fumiferana)

MAINE: Moth flights occurred as expected but much heavier than anticipated. Moths very heavy; gathered near roads and lights where "piles" found. Road from Allagash to Fort Kent literally "paved" with moths. Also reported heavy at Portage, Caribou, and Presque Isle. Moth flight appeared to precede storm from northwest. Moths heavy in central and north-central areas of State. Egg masses observed everywhere; mini-infestations may appear in 1975. Several minor flights also observed. PENNSYLVANIA: Adults found on hemlock and spruce. Thus pest appeared in heavy numbers in Centre, Armstrong, Butler, Green, Allegheny, Venango, Beaver, Mercer, Lawrence, Crawford, Clarion, Forest, Warren, McKean, Erie, and Washington Counties. Larvae seen this year in Clearfield and Jefferson Counties on hemlock.

YELLOWHEADED SPRUCE SAWFLY
(Pikonema alaskensis)

MAINE: Seems heavy although infestations light. Species can be very damaging, especially in spruce plantations. Cocoons noted in some infestations.

FALL WEBWORM
(Hyphantria cunea)

VERMONT: Webs expected soon. NEW HAMPSHIRE: Larvae in second instar. Webs noted on lilac and other hosts at Lee, Strafford County.

WHITEMARKED TUSSOCK MOTH
(Hemerocampa leucostigma)

MAINE: Second and third-instar larvae noticeable on several tree species, especially willows, at Old Town, Penobscot County.

BENEFICIAL INSECTS

CHRYSOMELID BEETLE
(Agasicles hygrophila)

FLORIDA: Adults and larvae heavily infested leaves of all 30 plants of alligator weed, Alternanthera philoxeroides, examined at aquatic nursery in Tampa, Hillsborough County. This species introduced from Argentina to control alligator weed.

ALKALI BEE
(Nomia melanderi)

WASHINGTON: Sampling of 7 bee beds at Touchet, Walla Walla County, showed average of 6 percent eggs, 20 percent larvae, and 74 percent prepupa. Average of molded pollen balls 20 percent (range 10-43 percent).
Double edge sod cutter blades. Will fit any Ryan sod cutter. Works like double edge razor. Places 2½ times more sod per blade. Made to bolt on both ways. $24.00 plus postage. New automatic sod loaders for direct loading to pallets, trucks or trailers. No workers needed on ground. Both products developed and designed by Hadfield. Write or call Glen Hadfield, 4643 Sherwood, Oxford, Michigan 48051. Phone 313 626-2000.


USED EQUIPMENT

For Sale: Sprayers: used and new, hydraulic and mist, all makes; Royal 20, 35, and 55 pumps. Used rotohut parts, big discount! Phone 313 665-5338 or 313 994-3110. Write: Ralph McFarland, 209 Pleasant Place, Ann Arbor, Michigan 48103.

For Sale: 1965 GMC 4000 Asplundh split-dump truck in good condition. Also Williams and Harvey tree mover mounted on 1964 Ford 1660. Funk Bros. Tree Service, Inc., P.O. Box 225, Massillon, Ohio 44648. Phone Ashland 325-2113; Mansfield, 589-2619.

For Sale: 1 John Bean 35 GPM sprayer with 400 gallon tank, 300 ft. high pressure spray hose, and hose reel. For more information just call B. M. Fry, Co., 8363 Mulberry Rd., Chesterfield, Ohio 44026. Phone 216 729-7480.

5 Gang Roseman Mowers, $500. Also 7 gang, 4 Toro mowers, $200; Ryan sod cutter, $500, with roller attachment, $900; Cushman golf truck, $200; Fruehauf dads, $200. Phone 414 326-5267.

Reconditioned brush chippers, trucks with dump chip bodies, bucket trucks, backhoes, Case unloader, Truco reel trailer and other miscellaneous construction and tree equipment. Trees of Houston, P.O. Box 94151, Houston, Texas 77018. Phone 713 692-6371.

Vermeer 630 stump cutter with about 250 hours working time. Operates perfect in every way. Less than two years old. $3,000 is cost. If interested call Richard Crouch, 804 638-8383.

Vermeer TM700T tree transplanter on 1966 Chey truck, excellent shape, moves trees 40 feet tall. Call or write R66, Warsaw, Indiana 46580. 219 454-2242.

Vermeer TM700T tree transplanter on 1966 Chey truck, excellent condition. Low hours, 3 men harvest around 1 acre per day. Maryland Turfgrass Industries, Inc., P.O. Box 978, Elkton, Maryland 21921.

TS-66T Vermeer tree spade on 1970 C-60 Chevrolet, excellent condition. Phone 303 932-994.

1969 Hydro-Seeder, Finn 800 gallons, Phone Richfield, Ohio. 216 659-9444.

SOD QUALITY Merion Seed for discriminating growers. Fykling, Delta, Park, Newport, Nugget, Adelphi, Cheri, Glade and Baron bluegrasses as well as fine fescues. Also Manhattan fine leaved rye grass. We will custom mix to your specifications. Michigan State Seed Co., Div. of Vaughn-Jacklin Corp., Grand Ledge, Michigan 48837. Phone No. 517 627-2164.

HOTLWANTED

Working Foreman — We are a medium sized, midwestern, full service tree expert company, looking for an experienced crew foreman. Should be familiar with production trimming and removal. Modern equipment, paid hospitalization, vacation, and holidays. Salary open. Please send resume and salary requirements and any questions to Box 121. Weeds, Trees & Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.


Miscellaneous

Tree Appraisals, Surveys, loss evaluations and expert consultation services. For names of members of the American Society of Consulting Arborists, Inc., throughout the country, contact: Executive Director ASCA, 12 Lakeview Ave., Milltown, New Jersey 08850.

Business Opportunities

Right-of-Way brush control business, netting $35,000 to $45,000 annually, total investment $125,000.00. Located in midwest. Write Box 123, Weeds, Trees, and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

Position Wanted

Tree Care — Management or Sales. Age 42. Founder and builder of one of the east coast’s most prestigious tree care companies. Retired 3 years ago and am now anxious to get back into the tree care field either directly or with an allied industry. Will work for you, share in ownership with you or buy you out. Am looking for a challenging, high income potential situation where my sales ability can be combined with my extensive business management background. Am a dynamic, self assertive, positive thinking individual with proven leadership capabilities. Box 123, Weeds, Trees & Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

Pressure Injection Method Used to Combat Oak Wilt

Members of the Plant Pest Control Division of West Virginia’s Department of Agriculture were out in full force to fight oak wilt disease this summer.

Oak wilt, a vascular wilt disease, threatens all oak forests in West Virginia. The disease was discovered in 1951 and control measures were initiated shortly afterwards.

This year, 50 summer workers and five low-flying aircraft were employed to locate and treat the dyi
Heals wounds; prevents decay

Cabot's Tree Healing Paint is a carefully prepared bituminous paint for protecting live wood and preventing decay. Leading arborists and foresters have been using it for almost half a century. Here are the reasons why:

- ideal for trees, shrubbery, etc.;
- seals, heals wounds, cuts, broken limbs, pruning abrasions.
- stimulates growth of new bark
- apply with brush or spray; produces a black, tough, elastic, quick-drying coating.
- excludes moisture; stops rot; prevents evaporation of sap
- may be used in any season
- excludes moisture; stops rot; prevents evaporation of sap
- apply with brush or spray; produces a black, tough, elastic, quick-drying coating.
- excludes moisture; stops rot;
- may be used in any season

Prices f.o.b. Boston less normal trade discounts

---

**Antabuse**, a product used to curb drinking by making you sick if you drink, is chemically related to the fungicide thiram, reports the Canadian Department of Agriculture. Pesticide experts state it's possible to take in enough thiram while working with it to make you sick to your stomach if you drink a cold beer after a hard day's work.

Hans Schabel, forestry professor at the University of Wisconsin, predicts a strong spread of Dutch elm disease throughout Wisconsin this fall. He says there is a particularly large population of elm bark beetles this year. Schabel suggests that Benlate might be used even this late in the season if transmittal of the disease has been by beetle and if there is less than five percent crown damage to the tree.

The National Fire Protection Association recently published in pamphlet form the "Tentative Code for Storage of Pesticides in Portable Containers." The code was developed to minimize involvement of pesticides in fires and to reduce the hazards to fire fighters and the public when fires involve buildings in which pesticides are stored. Code provisions apply to both inside and outside storage of all forms of pesticides in individual containers with a maximum capacity of 660 gallons. Copies of the code are available from the National Fire Protection Association, Publications Sales Department, 470 Atlantic Ave., Boston, MA., 02210. Cost is two dollars.

**National Football League** (NFL) players are expressing their dissatisfaction with artificial turf. At a recent NFL Players Association conference on the subject, Ed Garvey, the players group's executive director, said the NFL has taken "an ostrich-like approach" to the dispute over artificial surfaces. In addition, several players recited a litany of complaints about artificial turf. One player said he preferred the material be used for "doormats" and "outdoor patios."

"Aggregating pheromone," a powerful attractant bouquet released by virgin female European elm bark beetles for breeding and feeding purposes, has been successfully isolated by scientists. In recent field tests the artificial chemical has lured millions of the insect pests to their deaths. Aside from the control potential, the attractive chemical will find other important uses. Of particular importance is the ability to delineate the distribution of the beetle, detect its presence in new locations and monitor its emergence through varying weather conditions.
The three top dressers in the business.

Bob Scobee of Riley Lawn & Golf Equipment Corporation in Indianapolis, Ind. is one of them even though he denies it.
He'd rather have you look at the other two. They're Jacobsen's Mete-R-Matic Top Dressers that reduce the dragging and raking of top dressing. And give you the fast, even, deep-turf dressing you'd rather have.
The F8 is the walking model. It spreads up to 225 feet per minute with a width of 3 feet.
The big F9 is the riding model. It spreads 3 feet wide at speeds up to 4 M.P.H., and goes from green to green at 11 M.P.H. The optional drag mat covers a 6-foot swath. It also offers the exclusive feature of full use even while the F9 is going in reverse.
What they both do that make them the top of the top dressers is evenly drive the dressing clear down to the base of the turf where it belongs. And the amount of material is easily regulated by a fingertip control.
Just like the rest of us Jacobsen Distributors, Bob Scobee would like to prove to your own eyes how these top dressers can save you time and money. With beautiful results.
Contact one of us for a seeing-is-believing demonstration. Just so you'll keep your eyes on the top dresser, we'll come casual.

Your Jacobsen Distributors.
Before we sell it, we buy it.
Mel Rich says: "In mile-high Denver we need a grass that can withstand cutting shock, survive long hauls and stay green through the laying installation." He picked Baron Kentucky Bluegrass.

"In our climate of cool nights, warm days, high winds and low humidity, we need a grass that can survive long hauls, and stay green, fresh and beautiful."

"We've been growing Baron both in our mixtures and pure stands. We're impressed with Baron's rapid establishment, rugged durability and beautiful final appearance on customers' lawns. And Baron holds its color—even with neglect."

"Baron's strong, vigorous root structure withstands cutting shock better and survives through long hauls and laying installations. Baron gives us a sod with a dense turf and root structure like a finely woven carpet."

There's not much more we can add except that Lofts Pedigreed Seed Company or any authorized distributor is ready to satisfy your need for quality seed wherever you grow sod.