

## LANDSCAPE

### Firms predict jump in business

Landscape firms are predicting an average 15% or more increase in business across the country this year, according to a survey conducted by the National Landscape Association. Ninety-percent of those responding indicated that they expect increased landscape sales during 1978.

Projections made by NLA members indicated that the strongest sales will be in new residential and commercial landscaping. Residential renovation followed close behind. Only half of the respondents expected increases in commercial renovations.

Three-quarters of the landscape firms indicated bookings in new residential and commercial landscaping. Two-thirds indicated increased bookings for residential renovation landscaping.

The same survey a year ago showed an expected 12% increase in 1977 business over 1976.

## IRRIGATION

### Toro announces low-cost system

The Irrigation Division of the Toro Company unveiled a method of converting a manual irrigation system to automatic without wires or control tubes during the 1978 Golf Course Superintendents Association of America Turfgrass Conference and Show in San Antonio in February.

The new system was developed by Karl Fry especially for low-income golf courses with quick-coupler sprinklers, but is expected to have application for other large turf areas. The system, called MPC for modulating pressure control, requires modification of the pump house, and that expense will depend upon the present condition of any pumphouse. Pressure regulating valves and a pressure tank are necessary. Once the pumphouse is adequate and the central controller installed, conversion is simply a matter of replacing heads by removal of the quick coupler and replacement with any one of Toro's valve-in-head gear-driven rotary sprinklers and

the installation of a cyclor at each head.

The controller is a 39-station solid-state electronic one. No electric wiring, however, or control tubing is necessary between the central controller and the sprinklers heads and there are no satellite controllers.

The cyclor is the heart of the system. It reacts to pressure changes in the main line to turn the sprinklers on and off. The central controller intercepts the water flow between the pumphouse and each cylinder to determine the starting time and duration of watering for each sprinkler. The cyclor contains gears and levers that respond to hydraulic pressure. It has four hydraulic connections, one each that: "reads" the pressure in the piping system, supplies water to the valve through the cyclor, and to the valve, and drains the water to open the valve.

A demonstration system was installed at Windcrest golf course in San Antonio, Texas. The pumphouse was completely remodified at a cost of approximately \$8,000. Heads were then converted and cyclors installed by the course's maintenance personnel at a rate of 20 per day, with a 200 head conversion complete in 10 days.

The demonstration itself at Windcrest ran very smoothly. It is estimated that there are more than 4,000 low-budget golf courses with quick-coupler manual systems that should be able to afford an MPC system, according to John Skidgel, Toro's golf course/government marketing manager. Full production of the system is expected in early 1979.

## TURF

### Michigan firm publishes bibliography

A bibliography of turfgrass literature during 1672 - 1973 has been compiled and edited by James Beard, Harriett Beard, and David Martin. The TURFGRASS BIBLIOGRAPHY contains more than 16,000 references listed alphabetically on an author basis. These references are then cross listed in a subject index which contains more than 40,000 entries. Scientific, semi-technical, and popular writings covering all phases of turfgrass

science, culture, and management are included.

The Michigan State University Press, a nonprofit organization, has published 1,500 copies. Financial assistance in publishing the book was given by the O.J. Noer Research Foundation, United States Golf Association Green Section Research and Education Fund, The Michigan Golf Association, and The Michigan Seniors Golf Association.

The reference will sell for \$35.00. Orders may be sent to Michigan State University Press, Harrison Road, East Lansing, Mich., 48824. Orders will be filled starting June 4.

## DISEASE

### Extension loss figures top \$90 million

The U.S. Cooperative Extension Service has reported an estimated annual loss in the U.S. of \$4,670,000,000 as a result of crop, tree, and other plant diseases.

The Agriculture Research Service of the U.S. Department of Agriculture reported that pests, including weeds, cause approximately 30% annual loss in potential production of food and fiber. About 50,000 species of fungi cause over 1,500 crop and animal diseases; over 1,500 nematodes damage crop plants; and more than 10,000 insect species cause serious crop and livestock losses.

## NURSERY

### Biological waste process developed

Workers at the Biological Waste Management and Soil Nitrogen Laboratory in Beltsville, Md., have developed a method of converting raw or digested, dewatered sewage sludge into compost ready for use in potting mixes and nursery soil in 60 days. The compost has an odor similar to that of normal garden compost. It has a pH of 6.5-7.0 and contains 0.9-1.6% nitrogen, 1.0-1.2% calcium, 1.0-1.2% magnesium, and an abundant supply of trace elements.

Research work has shown that, regardless of the amount of composted sludge blended, pH and phosphorus levels are above optimum. Further study is needed to determine if supplemental potassium will be beneficial.

# GOVERNMENT

## UPDATE

### President wants EPA's budget increased

The Carter administration has asked Congress to approve \$60.7 million in fiscal 1979 for the Environmental Protection Agency's pesticide programs, a \$13.7 million increase which reflects a change in review priorities by the agency, said Robert Wayland, EPA's lobbyist on Capitol Hill.

"We'll direct more of our resources toward the re-registration program," Wayland said, referring to the program where government investigators will review all chemicals approved by the federal government before 1972. Wayland said this period includes "almost all pesticides (now used); virtually the universe" and estimated that 50,000 chemical products would be affected.

He said that preliminary tests already conducted by the agency show that 150 of the 1,500 active ingredients known to make-up chemical products are suspected to cause serious health or environmental hazards. The agency will conduct further tests on the ingredients, including Toxifine, the most widely used ingredient, to determine the safety of all chemical products.

The investigation will also cover the 4,000 pesticides that leave residue on organisms after application, testing for safe tolerance levels.

Wayland said that many pesticides used now had "very minimal testing" before they were allowed to be sold. He estimated that it costs some companies about \$5 million today to test its potential products to meet federal government standards.

Besides the re-registration program, the Carter administration also hopes its additional funds for pesticide programs will expedite the registration of 8,500 new products.

The administration has also asked that \$9.5 million be given to the Pesticides and Toxic Substances Enforcement Division so that group can expand its state enforcement grant program. The EPA notes that the states will assume many of the enforcement functions now under federal supervision in 1979.

EPA administrator Douglas Costle indicated that the Carter requests will improve the agency's aim to provide a cleaner and safer environment. "Our budget request for 1979 is a dramatic reversal of the last six years' inadequate support for the protection of the environment," he said.

### State registration questioned by GAO

A General Accounting Office report has found that some states have misused their pesticide registration authority by registering pesticides which had previously been suspended or canceled by the Environmental Protection Agency, those that required food tolerance levels not yet set by EPA, and others that EPA feels can cause unreasonable environmental effects or just don't perform well.

The report said these violations of FIFRA occurred because some states intentionally misused their authority or that EPA certified states that are incapable of following the law.

The report, requested by Senators Ted Kennedy (D-Mass.) and Jacob Javits (R-N.Y.) members of the Senate subcommittee on Health and Scientific Research, concluded that states should not be able to register pesticides not approved by the EPA. It also said violators should be fined or their registration authority suspended.

Although the House of Representatives has voted to allow states to determine pesticides for special local needs, GAO recommends that EPA maintain its review authority and also work to uncover those pesticides used which have not been approved at the federal level.

## TURF

### Musser Foundation takes funding action

The Musser International Turf-grass Foundation voted to hire a professional estate planner/fund gatherer at its meeting during the GCSAA Conference in San Antonio, Tx.

William Lyons will be in charge of the fund raising effort which is financed by a \$1,000 grant from board member Hugh Chronister representing Harvest Publishing Co.

The Musser Foundation gives financial grants to turf students. One grant to an Ohio student has resulted in a major discovery of the life cycle of the extremely destructive *Ataenius* beetle.

The Foundation, under the direction of Dr. Fred Grau, wants to expand its scholarship work by broadening its financial base through memorial contributions and gifts.

## REGULATION

### EPA announces restricted list

The federal Environmental Protection Agency has announced its official list of restricted use pesticides — those that can legally be used only by certified applicators.

Of the 23 pesticide ingredients on the restricted-use list, none are used extensively in turf, but some are used in tree and ornamental work. They are:

Aldicarb, marketed by Union Carbide Corp., San Francisco, under the trade name Temik for insect control on ornamentals.

Allyl alcohol, marketed by Don Chemical Co., Midland, Mich. for use on nursery seed beds.

Azinophos methyl, marketed under the trade name Guthion by Chemagro, Kansas City, Mo. for insect control on ornamentals and shade trees.

Demeton, marketed by Chemagro under the trade name Systox for control of aphids and mites on ornamentals.

Methomyl, an insecticide for ornamental use marketed as Lannate by DuPont Co., Wilmington, Del. and

*Continued on page 103*

# Now from Elanco



# Spike<sup>®</sup> granular

for broad spectrum Vegetation Control that lasts MONTH  
AFTER MONTH  
AFTER MONTH

For the past several years, Spike granular has been tested in actual field situations. When applied in accordance with label directions, Spike will result in a high level of long lasting broad spectrum vegetation control at low costs.

Test plot demonstrates dramatic result of single application of Spike. ▶

MONTH  
AFTER MONTH  
AFTER MONTH



## Dependability!

... that's what all of Spike's properties add up to. Spike is a proven broad spectrum vegetation control product that is truly tough on weeds! What's your tough vegetation control problem? You should consider Spike an essential weapon in your chemical arsenal. Contact your Elanco distributor for full details on Spike ... the tough one for broad spectrum vegetation control!

### ... the tough one, for broad spectrum vegetation control

- Does your herbicide get the tough weeds?
- How long does your herbicide last?
- Is your herbicide as economical as Spike<sup>®</sup>?

Does your herbicide measure up to Spike? Maybe you should compare your herbicide with Spike granular in some other ways too.



also available as  
a 5% Granular.

## ELANCO

Elanco Products Company  
A Division of Eli Lilly and Company  
Indianapolis, IN 46206, U.S.A.

## PEOPLE

The California Association of Nurserymen has elected **Lewis F. Van Buskirk** to serve as the group's vice president.

President of Van's Greenbriar Nursery in Stockton, Van Buskirk has served as Superior Chapter President of C.A.N. twice, and has been a chapter board member for 10 years, state board member for 7 years, chairman of the Legislative Committee and the Retail Owners Committee, and has served on the Market Development/Public Relations Committee for two years. He was named Young Nurseryman of the Year in 1971.

**Pam Fay** has joined FMC Corporation's Outdoor Power Equipment Division as product manager for Bolens front and rear engine rider products. She will also have responsibilities in the area of business planning.

Fay has held several planning positions with the Chemical Group of FMC Corporation in Philadelphia. Prior to joining FMC, she was an associate brand manager for the Scott Paper Company.

Fay holds a B.A. in mathematics and a Masters Degree in Operations Research, both from the University of Pennsylvania.

John E. Mitchell, executive vice president of Massey-Ferguson Limited, has announced the appointment of **Kenneth E. Glass** as president of Massey Ferguson Inc., the U.S. operating subsidiary of Massey-Ferguson Limited, and as general manager of the company's North American Operations. Mitchell will become chairman of Massey-Ferguson Inc.

Glass held senior appointments both in North America and Europe with Allis Chalmers and Fiat Allis before joining Massey-Ferguson.

**Jeffrey J. Dreazen** has joined the Harvest sales staff. He will be responsible for the Kansas City and Chicago territories for WEEDS TREES & TURF. Jeff will operate out of the Chicago Harvest office at 333 N. Michigan.

The promotion of **Steve Barber** to manager of Marketing Services for the Davis Division of J I Case was recently announced by C. M. Simpkins, General Manager of Marketing. Barber has been with the Davis Division the past four years as a territory manager of Marketing Services.

Barber will be responsible for co-



**James D. Beaton**

ordinating and supervising sales promotion plans, advertising and product training programs, and will work closely with new product development, according to Simpkins.

**Dan Dunstan** has been appointed vice president, secretary and chief operating officer of Lakeshore Equipment & Supply Co. His responsibilities will include overall management of the company.

Credit manager for Lakeshore for two years, Dunstan is a graduate of The Ohio State University, with a degree in accounting.



**Pam Fay**

The New York State Nurserymen's Association has elected **Alfred Krautter**, Sprainbrook Nursery in Scarsdale, to serve as president for 1978. **Henry Weller**, Congdon & Weller in N. Collings, has been elected 1st vice president and **Jack Lander**, Jack Lander's Landscaping in Newburgh, has been elected 2nd vice president.

Also elected to office were **Arthur H. Steffen**, Arthur H. Steffen, Inc., of Fairport, as treasurer; **Frank Ferraro**, Bianco & Ferraro in Washington Mills, as secretary; and **George Schichtel**, Schichtel's Nursery in Orchard Park, as director-at-large.



**Kenneth E. Glass**

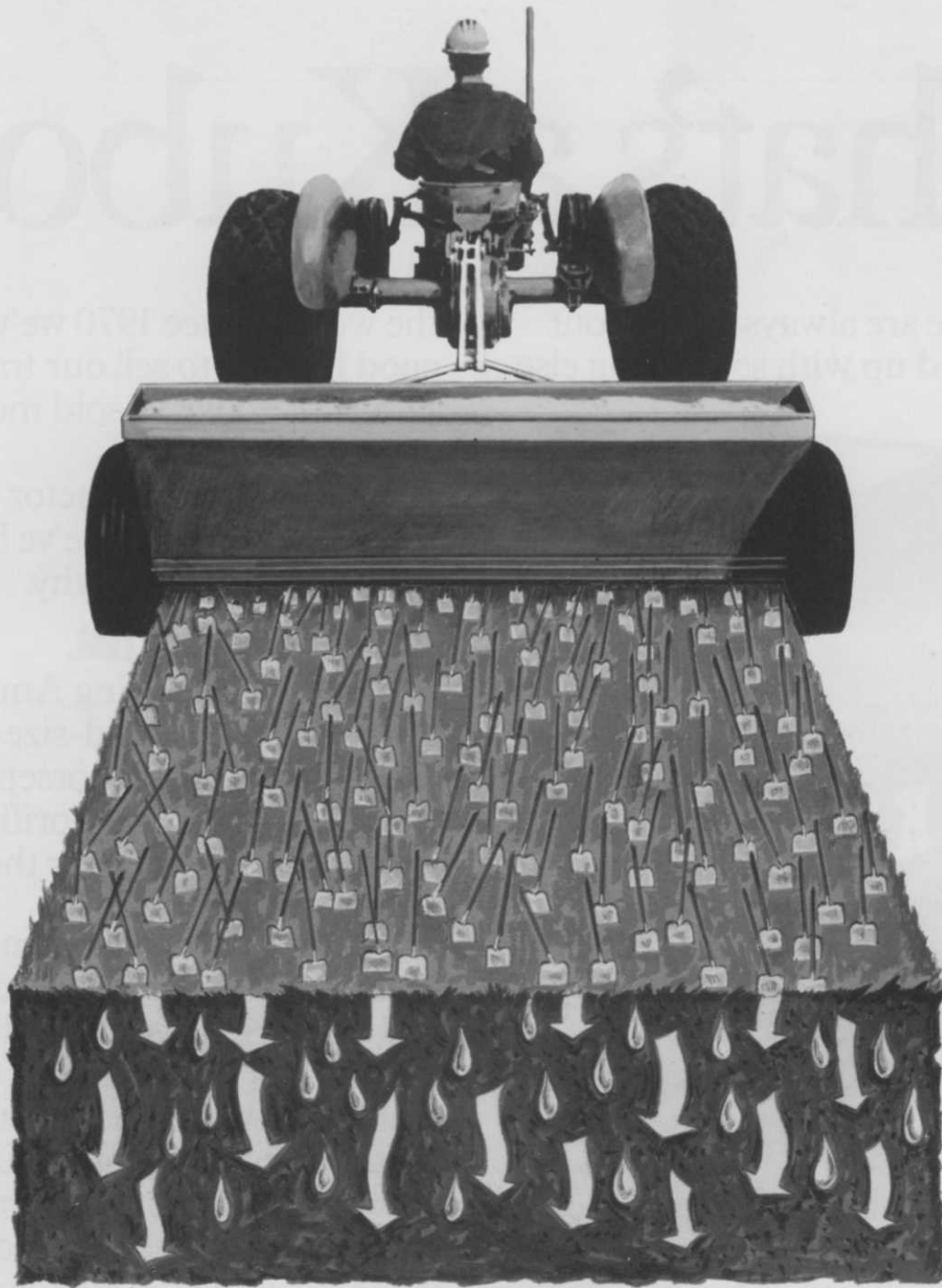
Rohm and Haas Company has announced the appointment of **Linda M. Stutz** as Advertising manager for its Agricultural Chemicals Business. Stutz will be responsible for all aspects of communications for the Company's line of pesticides, spray adjuvants, enzymes and micronutrients.

Stutz holds a B.A. from Temple University and is currently doing graduate work in business administration at the Wharton School of the University of Pennsylvania.



**Linda M. Stutz**

**Dr. James D. Beaton**, chief agronomist of Cominco Ltd will become Director of the Potash/Phosphate Institute programs in Western Canada, Montana, Idaho and Washington. "Dr. Beaton is a well known authority in soil chemistry and fertility," according to Dr. R. E. Wagner, Institute president. "His work has been outstanding in three areas. In studying the behavior of different fertilizer materials under different soil conditions, in developing and evaluating new, improved fertilizer materials, and in communicating the results to farmers, dealers, and fellow scientists."



## **Easy way to loosen heavy clay soil! Works like millions of tiny hoes.<sup>TM</sup>**

Sof'n-Soil<sup>TM</sup> Gypsum works its way down to loosen heavy clay soil so it can breathe. Lets air and water penetrate, boosts efficiency of costly fertilizers. Sof'n-Soil, a natural mineral, stimulates vigorous root systems—promotes growth of grass, trees, shrubs, and flowers. Ecologically safe, Sof'n-Soil *is not lime*. It's neutral, non-



caustic, non-burning—harmless to plants, pets, and people. And here's the bonus: Sof'n-Soil supplies essential calcium and sulfate sulfur in readily available form, stimulates decomposition of organic materials, too. Write to us at 101 S. Wacker Dr., Chicago, Ill. 60606. Dept. WTT-38.

CHEMICALS DIVISION  
**UNITED STATES GYPSUM**  
Primary Supplier of Secondary Plant Nutrients

# What's a Kubota?

People are always getting our name mixed up with something else.



We're not a fig. That's Kadota. We're not a couple of states. They're Dakotas.

We're Kubota. The tractor company. But even people who know tractors don't know us too well. We're not that famous. Yet.

## **WHO ARE WE?**

Our company is 87 years old, and we're the fifth largest tractor maker in

the world. Since 1970 we've had the good fortune to sell our tractors in the U.S.A. And we've sold more than 34,000 of them.

As American tractor sales go, that's not a lot. But we've been growing steadily. And here's why.

## **THE MID-SIZE TRACTOR.**

Kubota is giving America something it needs. A mid-size tractor. We don't make 100 horsepower giants. And we don't make glorified garden tools. Instead, we cover the ground in between.

Our tractors range in size from 12 to 47.5 horsepower. And they are real tractors. Tough, durable, strong. You can get power take-offs front and rear and 4-wheel drive. And a three-point hitch that handles just about every implement under the sun. Rear- or mid-mount mower, back hoe, cultivator, dozer blade, whatever you need.

## **WHO NEEDS IT?**

Whether you're working three acres or three thousand, you probably have a place for Kubota.

If your place is small, we have a model that's exactly right to do all those hard jobs that involve tilling, digging, or hauling.

If your place is big, you probably own several big tractors already. But it doesn't make much sense to fire up a 100-plus horsepower rig to clear some weeds. Not with today's fuel and maintenance costs.

### **GIVE THIS TRACTOR A JOB.**

Now that you know a little bit about us, we hope you'll consider our job application.

But no matter how much we tell you here, your Kubota dealer is best

qualified to clue you in on what our tractors can do. And participating dealers will also explain how you can get in on Kubota's Super Sweepstakes going on now.

So see your dealer soon. And talk to him about a job.

## We're looking for work.

**QUICK!** Please rush me your newest, brightest, full-color brochure so I can find out even more about what makes your tractors so terrific.

Mail to: Advertising Department  
Kubota Tractor Corporation  
300 West Carob Street, Compton, CA 90220

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_

ZIP \_\_\_\_\_

WTT 3



 **KUBOTA**®

# CANYON BUILDING SITE PRESENTS UNIQUE REVEGETATION CHALLENGE

An unusual location for a building and a near disastrous landslide were just two of the many challenges of a revegetation project carried out for Johns-Manville Corp. in a canyon area 15 miles southwest of Denver.

The approach to the corporation's world headquarters follows Deer Creek Canyon, a very narrow but short canyon piercing the front range hogback. The hogback is a geologic formation of immense red sandstone monuments providing a spectacular transition from the eastern plains of Colorado into the foothills of the Colorado Rockies.

The vegetation on the project site further illustrates the transition from plains to mountains. Gambel's Oak, Mountain Mahogany, Rabbit Brush and Four-wing Saltbush are native to this area. The dominant grasses are Buffalograss, Blue gramma, Western Wheat, Crested wheatgrass and Smooth

brome. Rocky Mountain Juniper and Ponderosa Pine are the dominant trees on dry, well-drained soils while some aspens are present at higher elevations, along drainage collection points.

In this setting of magnificent geologic forms and earthen hues the architects, The Architects Collaborative Inc. (TAC), engineered a building utilizing materials made by Johns-Manville.

The natural setting and building design utilize the difficult concept of contrasting two immense visual features without subjugating either element. As a result, the beautifully strong sandstone forms and piercing clean lines of the building offset each other in spectacular fashion.

To achieve this concept in design the two primary elements must stand alone without visual interference from lesser features in the landscape. One such feature interfering with this concept was



**Workmen roll out** netting by hand so as not to disturb the relatively loose soil structure of the canyon wall.



# GENERAL CONTRACTOR REWORKS

the extensive slide area directly behind the headquarters.

After site preparation had been completed by the general contractor, a massive 200,000 cubic yard landslide occurred requiring this additional material to be incorporated into the building site and road construction. The landslide left behind a tremendous scar creating severe erosion and slide potential, as well as visual interference with the design concept.

Randall & Blake, Inc., at the direction of TAC, provided expertise to achieve the following goals as related to the slide area:

- Reduce the visual disturbance to a minimum.
- Prevent surface erosion.
- Reduce massive slide potential.
- Reduce maintenance to a minimum.
- Provide forage for resident wildlife.



**A helicopter** delivered all supplies to men on the project in four hours flight time.



**Scar** left by landslide prior to revegetation.

# JOB MATCHED POWER



**Ford rear blades** for grading, leveling, ditching, back-filling, snow clearing, other jobs. Eleven models, 6 to 10-foot widths. Swing offset feature, standard on selected models, lets operator offset the blade right or left quickly and easily.



**Ford backhoes.** Great for ditching, excavating, trenching. Choose from 10-foot, 13-foot, 15-foot, heavy-duty 15-foot and 17-foot Ford backhoes, and 8-foot Arps backhoe for Ford CL-30, CL-40 compact loaders. Ford digging power helps shorten the job.



**Ford 3-point hitch and hydraulics** with twin lever controls. It's the Ford design for fast, precise landscaping. Response is smooth and accurate with fine increments of adjustment. Permits three types of response: 1) Blend of draft and position control. 2) Draft control. 3) Position control. Available on selected models.



**Ford LCG (low center-of-gravity) tractors.** Ideal mowing and towing power. LCG design hugs the slopes, while optional dual rear or low-pressure, wide-base tires pamper turf. Shown with Ford flail mower. (Photographed at Pebble Beach, CA.)