

## WEEDS

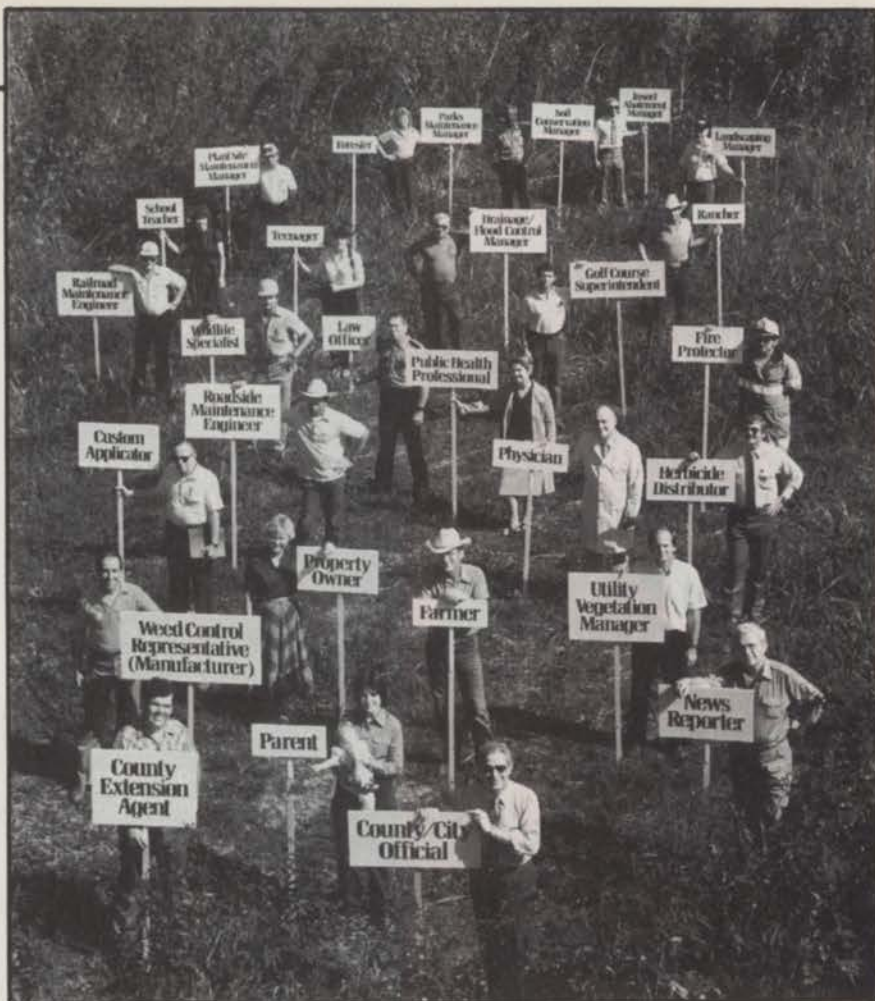
### Weeds affect everyone, says weed group

Most people think of weeds as nothing more than a slight bother when they tarnish a lawn. But members of the Weed Science Society of America say weeds have an economic impact on everyone.

"What we do and recommend and use for weed control will be determined by regulations which are prepared by people who do not understand the materials now being used—nor farmer needs, nor the contribution of weed science to food production," said Dr. S.N. Fertig, staff chief of the USDA-ARS pesticide impact assessment staff.

Weed control in agriculture can return \$3 to \$5 dollars to the farmer for each dollar spent. But the recent farm crisis has made only a small dent in the multi-billion dollar business of marketing weed killers, since the chemicals are also an important part of the Green Industry.

It's estimated that 25,000 people from 60 countries worldwide work in research and development of weed control products. In the U.S., about 2,000 researchers work for universities and government, and 10,000 are extension service specialists, advisors or custom applicators. Another 50,000 are in industrial and government maintenance or are foresters.



Who worries about weeds? Society president Dr. James D. Riggleman posed that question during the 26th annual Weed Science Society of America meeting in Houston. His slide, above, shows 28 non-scientist weed worriers standing amid a patch of "Texas-scale" weeds to symbolize the weed concerns of the average person in a typical community like Houston.

## CONFERENCES

### Landscape Expo moves to Chicago-land area in 1987

The Landscape Exposition will move to O'Hare Exposition Center in Rosemont, Ill. for its second year in 1987. More than 16,000 professional landscapers, representing 15 percent of the total industry, are located within 300 miles of the Center.

"The Landscape Expo is the only show covering the entire spectrum of suppliers," says show manager Dawn Pratt, "so we anticipate high attendance from this regional concentration, as well as at the national level."

One of the national organizations to endorse the Landscape Expo is the Professional Grounds Management Society.

"We believe the three-day conference program will give our

members increased educational opportunities," says PGMS executive director Allan Shulder. "The Landscape Expo is a very worthwhile endeavor for keeping the industry informed, and we look forward to a large turnout."

Last year's show and conference, held in Valley Forge, Pa., attracted more than 5,000 landscape professionals during its three-day run.

The Landscape Expo, co-sponsored by WEEDS TREES & TURF and LAWN CARE INDUSTRY magazines, will be held March 3-5, 1987. For information on attending or exhibiting, contact HBJ Expositions & Conferences, P.O. Box 5555, Norwalk, CT, 06854; (800) 243-2815.

## REFERENCE

### Michigan State offers turfgrass videotapes

A series of videotapes on turf tips for lawn care companies has been developed by Michigan State University and the Michigan Turfgrass Foundation.

The titles are: "Lawn Establishment" (14 minutes), "General Lawn Care" (26 minutes), "Lawn Grasses" (16 minutes), "Lawn Fertilization" (16 minutes), "Lawn Weed Control" (17 minutes) and "Lawn Maintenance Equipment" (19 minutes).

The tapes can be purchased in either VHS, ½-inch Beta or ¼-inch broadcast quality format. Prices for MTF members are \$35 per tape or \$175 per set of six. For non-members, prices are \$60 and \$300, respectively. Broadcast quality tapes are available at \$80 each or \$400 per set.

For more information, or to order tapes, write the Michigan Turfgrass Foundation, Box 275, Okemos, MI, 48864, or call Kathy at (517) 355-0270.

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## RESEARCH

### Do lawn chemicals contaminate our water?

Not much concrete evidence exists for blaming lawn care chemicals for water contamination. Penn State professor of turfgrass science Thomas Watschke is studying claims which link associate nutrients and pesticides applied to lawns with the decline of water quality.

"There is very little literature about lawns. Most data are from pasture hydrology studies. Yet a pasture is not comparable to a lawn," Watschke explains. "A lawn does not suffer the same degree of compaction or severe defoliation from grazing activity. The closest we come to that is using a lawn mower with a grass catcher."

The study has shown that differences in turf establishment methods affect runoff. Sodded plots have 15 times less runoff than seeded plots four months after establishment.

The data shows that 1,300 sq. ft. of sodded, sloped lawn, thick and green without soil patches showing through, will give off approximately 1/2-gallon per minute runoff during a peak rainfall.

On less dense, unattractive grass with bare areas separating clumps, up to 7 1/2-gallons per minute can escape during the peak.

"It appears that plant density and thatch contribute significantly to decreased runoff," Watschke says. The thicker the turf, the better its ability to decrease water movement and the greater its ability to remove nutrients and pesticides which have been applied.

Herbicides were applied to the test lawns last fall. Runoff water has been collected regularly and is currently frozen until it can be analyzed by the University's Pesticide Research Lab.

Watschke says the next step will be to add commercially-available pesticides and nutrients to study their effects. "This will finally put the cart before the horse," he says. "It will tell us what we don't know about what has already happened and is happening."

## LEGISLATION

### Federal government coming down hard on pesticide use

The EPA and the Government Accounting Office are trying to make it more difficult for commercial pesticide applicators to do business.

A proposed amendment to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), is being re-

vised in the House Agriculture Committee. It would require licensing for all non-certified pesticide applicators. But it's an amendment that prospective groups have sought.

"Unless we upgrade with training, we are going to be so vulnerable (to lawsuits)," notes Dave Dietz, program director of the Pesticide Public Policy Foundation.

The GAO, meanwhile, is not happy with the EPA's enforcement of FIFRA. It has issued a 50-page report questioning the safety of non-agricultural pesticides. The report also recommends:

- mandatory pre-notification for pesticide applications in public places;
- warning labels on pesticides that have not met the latest registration standards; and
- government involvement in enforcing pre-notification where it is required.

The GAO report was submitted to the Subcommittee on Toxic Substances and Environmental Oversight, Committee on Environment and Public Works, U.S. Senate.

"This report is going to be used against us for years and years," says Dietz, who has recently had to field

questions on national television ("20/20" and "The Today Show").

## STATISTICS

### Lawn care industry exceeds \$2 billion

U.S. revenues of the lawn care industry reached \$2.035 billion in 1985, increasing more than 16 percent from 1984, according to a survey by C.H. Kline & Co.

The Kline report noted that rapid growth within the industry is probably attributable to:

- successful adaptation of turf cultivation and maintenance techniques from agricultural and other professional sectors to residential and commercial markets;
- implementation of a consumer-service marketing approach;
- a relatively inexpensive, time-saving and professional method of caring for lawns; and
- widespread industry expansion through start-ups and territorial expansion of existing LCOs.

The report continues: "the chemical lawn care industry will continue to grow at a strong rate through 1990, although annual increases will

be slightly lower than current performance. Assuming an annual inflation rate of 5 percent, sales are projected at \$3.9 billion by 1990."

The Kline analysis is one part of a five-chapter report entitled "Strategic Opportunities in Chemical Service Businesses." For more information, contact the company by writing 330 Passaic Avenue, Fairfield, NJ, 07006, or by phoning (201) 227-6262.

## SEMINAR

### Monsanto aids aerial applicators

Monsanto has donated \$25,000 toward a training program for proper application of aerial pesticides in forests and rights-of-way sites. The seminar is tentatively scheduled for February in Indianapolis.

Monsanto will also contribute \$1 for every gallon of Roundup and Rodeo herbicides purchased and applied via aerial application in forests and rights-of-way during 1986. The funds will be used to develop a training manual and seminar.

The Aerial Rights-of-Way Applicators Association and Purdue

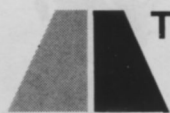
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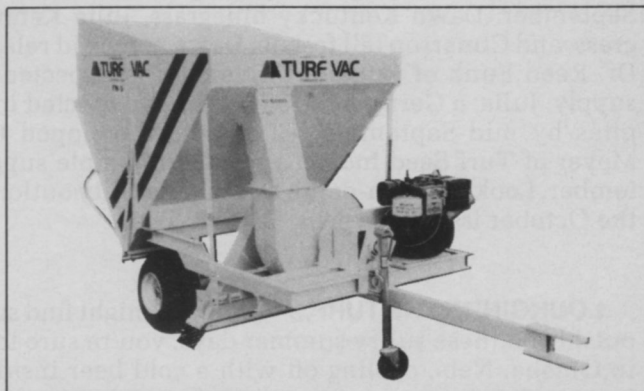
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# SHORTCUTS

**SOUTH OF THE BORDER...** Jim Mello of Nice 'N Green Lawn Care in Romeoville, Ill., is installing three polo fields in Queretaro, Mexico, 110 miles northwest of Mexico City. He is using turf-type tall fescue on the fields, which measure 10 acres. To put things in perspective, that's roughly nine times the size of a football field. When construction is completed, Mello will have installed seven polo fields, including four in the United States. He's used turf-type tall fescue on all fields.

**MORE ON TALL FESCUES...** Why turf-type tall fescues for good-looking turf? One reason, pointed out by Dr. Thomas Turner of the University of Maryland at the annual Lofts Seed Field Day, is because of the pesticide controversy. "We strongly believe we can reduce pesticide use by 50 to 75 percent with turf-type tall fescue," says Turner. "It's especially useful on sports fields. You get better footing and more rapid establishment with the turf-type tall fescues. Dr. Jack Murray at the USDA in Beltsville (Md.) is even experimenting with mixing turf-type tall fescue with zoysiagrass for sports fields."

**NOT SAFE ANYWHERE...** At least on a golf course, you're not. During thunderstorm season, metal and tall trees are not the only things lightning strikes. Tom Walker, superintendent at Inverness Club in Toledo, Ohio, host of this year's PGA, reports that lightning hit a wide-open area of his course. The 11th fairway, 25 yards from the green, took a jolt back in May. The message here is to use good judgement during a thunderstorm.

**LESCO OFFERS SEED...** Lesco Inc. of Rocky River, Ohio, is offering three new proprietary turfgrass varieties beginning in September: Dawn Kentucky bluegrass, Julia Kentucky bluegrass, and Cimarron tall fescue. Dawn, a hybrid released under Dr. Reed Funk of Rutgers University, is expected in limited supply. Julia, a German introduction, is expected in good supplies by mid-September. Cimarron, developed by Dr. Bill Meyer of Turf Seed Inc., is expected in ample supply in September. Look for an in-depth seed availability outlook report in the October issue of WEEDS TREES & TURF.

**LOUNGIN' IN THE TURF...** While you might find some people outside on these sultry summer days, you're sure to find some in Omaha, Neb., cooling off with a cold beer inside the Turf Lounge. It got its name from the horse racing track nearby.

**OPERATION EAGLE...** OMC/Lincoln devised a unique method of selling the new Cushman Eagle utility vehicle to dealers at its national dealer conference in June. Just before the company asked for orders, OMC/Lincoln employees donned uniforms. Gen. George Patton (impersonator Will Jordan) addressed the group, and Operation Eagle, a plan to defeat the competition, began. The play-acting may have worked. Dealers ordered 350 Eagles for delivery sometime in the early fall. OMC/Lincoln aims to sell 2,100 Eagles by September, 1987.

University have launched the program in an effort to establish uniform guidelines for aerial application.

The program is designed to give the applicator knowledge of pesticides, equipment, and proper application techniques, along with preparing them for an intensive certification examination. Additionally, the program may help applicators obtain insurance at reasonable rates.

"Proper handling, mixing, and spraying of pesticides as well as equipment and proper application techniques are critically important in aerial spraying," says Dr. Harvey Holt, professor of forestry at Purdue. "The training manual and seminar will help to further the applicator's understanding of the products he applies and equipment he uses."

For more information on the program write: Aerial Right-of-Way Applicators Association, c/o Dorf & Stanton Communications, 111 Fifth Ave., New York, NY 10003.

## PEOPLE

### Environmental names director, VP

**Environmental Industries** elects **Richard A. Miller** to the Board of Directors. He is a tax attorney and accountant specializing in the area of taxation. **S. Gene Giannulli** is named vice president of operations. He joined the company in 1984.



Richard Miller



Gene Giannulli

**Dr. Thomas P. Mog** is appointed director of environmental programs and **David A. Whitworth** is named horticulturist for **The Davey Tree Expert Company**. Mog will be responsible for directing the use, storage, and disposal of pesticides.



Dr. Thomas Mog



David Whitworth

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# Disneyland®

## LARGE SCALE LANDSCAPE MANAGEMENT

At Disneyland, there are 76 developed acres, 15 turf varieties, a million annuals, 2,500 trees, 800 plant species, 25 miles of irrigation pipe, and 42,000 sprinkler heads. It takes 45 employees year-round to do the job.

*by Heide Aungst, associate editor*







*"All the world is a stage..."*

Shakespeare wrote those words. Walt Disney believed them.

Disneyland in Anaheim, Calif., doesn't have employees. It has "Cast Members."

There aren't any customers, just guests.

And the stage isn't a raised platform in front of an audience. It's 76 acres of green turf, towering trees, and breathtaking floral displays.

The star of the show is landscape superintendent Ken Inouye, a Disney-type character himself. Inouye has the wisdom of Snow White's Doc and the smoothness of Cinderella's Prince Charming. He can oversee a landscape with the creative eye of Gepetto, Pinocchio's creator.

Of course, he has help. Disneyland's landscaping department employs 45 people, including supervisors, foremen, and an overwhelming 30 gardeners.

The crew performs an extensive amount of work during the year. For example, three pipefitters maintain an irrigation system with about 25 miles of pipes, 42,000 sprinkler heads, and 170 automatic clocks. The tree pruning crew of seven trims 2,500 trees a year, ranging from a 12-inch dwarf spruce to an 80-foot eucalyptus.

With 800 plant species represented from 40 nations, landscaping is indeed the key to Disneyland's setting.

Walt Disney had a goal when he built the theme park in 1955. "I don't want the public to see the world they live in while they're in the park," he's quoted as saying. "I want them to feel they're in another world."

#### **'God of horticulture'**

Disney left creative control to architectural designers Bill and Jack Evans. Inouye calls Bill Evans "the god of horticulture."

Evans, 74-years old, still works as a consultant to Disneyland. Inouye hopes to co-author a book on the park's horticulture with Evans.

Evans published the book *Disneyland World of Flowers* in 1965. Copies, stashed in a warehouse, were

**Far left: The patchwork garden in Storybook Land boasts more than 25 varieties of plants.**

**Purple and yellow-orange annuals decorate the entrance to Tomorrowland.**



The theme park's hero, Mickey Mouse, made up of a brilliant display of flowers, decorates Disneyland's entrance.



Phoenix *reclinata* palm trees, donated to Disneyland by Cecil B. DeMille, originally grew outside Space Mountain in Tomorrowland. Because of the remodeling of the ride, the palms are awaiting a new home.

eventually thrown out. Inouye's copy may be the only one remaining. Still, the plant varieties have changed so much in the last 30 years that an updated version is needed.

One change was an expansion from 10 turf varieties to 15, for what Inouye describes as "evolutionary reasons." Turf covers only about three acres at Disneyland. Railings surrounding the lawn areas made it possible to replace tough varieties designed for heavy traffic with more visually appealing turf.

"I give credit to the turf industry for developing the many varieties which cater to different needs," Inouye says.

Turf includes Santa Ana, Tifdwarf, and other varieties of bermudagrass; St. Augustinegrass; the bluegrasses Pennblue and Marathon; and fescues, including creeping red fescue.

The velvet-looking bright green grass outlining the entrance to Storybook Land is really a hardy zoysiagrass.

Where turf doesn't grow, there's sure to be one of about 10 varieties of groundcover.

Inouye uses few turf mixes because it lessens the impact. He approaches flower usage the same way.

"From a design aspect large quantities are more impressive than mixtures," Inouye explains. "When we put anything in for color, we plant a lot of them."

### Ever-changing color

"A lot" is an understatement. The seven acres of flowerbeds hold 800,000 to a million annuals a year.

Inouye's agricultural background sneaks through when he refers to his "croplists" of annuals. About 60 percent of the flowers are ordered three months to two years ahead of time. All flowers aren't pre-ordered because of rotation of the beds.

Beds are replanted every three to four months. Usually healthy plants aren't replaced, although about 20 percent of the time flowers are changed regardless of their condition.

Soil is also changed every several years. Disneyland soil is a combination of sand, redwood sawdust, and nutrients.

Color plays a big role in landscaping Disneyland. The flowers bring animation to the landscaping, the way Disney himself brought it to the screen.

The entrance to Tomorrowland, for example, is 4,000 sq. ft. of blue and yellow flowers—pansies in the summer; ageratum and yellow marigolds in the winter.

One day Inouye decided to change the flowers to orange and yellow. "I