

SHORT CUTS

BUY-OUTS from page 7
the acquisition in August.

BMB manufactures rotary mowers, rear blades for tractors and cultivators. BMB also manufactures rotary mowers for Ford Tractor under Ford's brand name.

BMB will continue its operations in Holton. The facility there will be expanded to allow increased production, including the manufacturing of the Rhino product line.

Thomas A. Herrmann of Easton, Conn. has purchased Locke Manufacturing, Inc., of Bridgeport, Conn. Locke is the manufacturer of professional lawn care equipment. Herrmann is Locke's seventh owner in the company's 62-year history. He will also become chief operating officer of the firm.

GardenAmerica Corporation has signed an agreement to purchase Irri-Trol Manufacturing of Valencia, Calif. for about \$7 million. Irri-Trol manufactures specialty irrigation controllers for landscape architects and installers. GardenAmerica manufactures lawn and garden products for residential and light commercial applications.

RSI Corporation, of Greenville, S.C. has acquired DeBra Enterprises, Inc., (Hollywood, Fla.) and Turf and Industrial Equipment, Inc. (Orlando, Fla.).

DeBra sells turf care products to golf courses, commercial customers and government units. Turf and Industrial Equipment sells and services turf equipment.

Sax Industries, Inc. of Nash, Texas, has purchased the assets and complete inventory of F.E. Myers power spray division in Ashland, Ohio. The company will produce and market general purpose and air sprayers for golf courses, parks, schools, cemeteries, lawns and municipalities.

The Agricultural Services Division of Land O'Lakes, Inc. has acquired 24 midwestern retail fertilizer plants from the International Minerals & Chemicals Corp. Land O'Lakes is a major supplier of fertilizer and agricultural chemicals in the upper Midwest.

PESTICIDES

Preemergence material works on 90 weeds

Elanco Products Co. hopes to have EPA label approval for EL-107, a pre-emergence herbicide, by early 1988.

The new herbicide for turf and ornamentals has broadleaf activity. It is the only experimental pesticide that

NO MORE COMPETITION... Competition has become cooperation for members of the ALCA Interior Landscape Division and the Interior Plantscape Association. The ILD, now the IPD, has assimilated IPA members, thereby almost doubling its membership, according to WEEDS TREES & TURF sources. The new, larger group, though remaining under the umbrella of the Associated Landscape Contractors of America, promises to be a more effective organization than either of its predecessors.

BOUT WITH THE DROUGHT... Golf courses on Hilton Head Island stayed green through the summer's severe drought despite restrictions on water usage. The reason: the courses are watered with sewage effluent rather than fresh water. This actually helps the level of the island's underground water aquifer. The earth's soil filters out the remaining impurities in the effluent before it reaches the aquifer to replenish the water source.

COUNT DOWN... Northrup King Seed Company has hit the market this fall with the first salt-tolerant sod, ideal for roadsides and rights-of-way. The company, a leader in researching native grass varieties, previously marketed only salt-tolerant seed mixes, primarily its Boulevard mix. But according to turf specialist Mark Grundman, the mix must be composed by seed count, rather than seed weight. Grundman says if its not done that way, certain aggressive native varieties will take over.

JUST DOWN THE RIVER A BIT... The Skokie River— well, actually it's more like a brook— flows through nine golf courses outside of Chicago, Ill. It starts at Lake Bluff Golf Course in Lake Bluff and flows from there to Deer Path Park Golf Course (Lake Forest) to Onwentsia Club (Lake Forest) to Old Elm Club (Lake Forest) to Highland Park Country Club (Highland Park) to Sunset Valley Golf Club (Highland Park) to Bob O'Link Golf Club (Highland Park) to Northmoor Country Club (Highland Park) to, finally, Glencoe Golf Club (Glencoe). That's about 10 miles "as a crow flies," says Onwentsia's superintendent Paul Boizelle.

THEY'LL GET YOUR GOAT... Way down in the lowlands east of Dallas, Texas, goats are everybody's friends. It gets a little messy at the city water plant in the summer when a combination of heat and oozing sludge produces lagoon grass that swarms up and swallows tractors. Enter seven Spanish goats who now keep the 67 acres groomed. The area previously needed twice-monthly mowings by seven men and a host of mowers. The animal maintenance unit is a neighborly arrangement between Samuell Farm and the nearby water plant. The plant saves gas and labor costs, while the goats eat for free.

Elanco is developing specifically for the specialty markets.

Company personnel say that they will probably recommend mixing EL-107 with a dinitroaniline (like pendamethalin or Balan) for sharper grass control. It also controls dandelions and buckhorn.

The product has been shown to work on 90 species of ornamentals for weed control, both alone and in combination with another Elanco product, Surflan.

TECHNOLOGY

Plant stress monitor measures turf's health

Standard Oil is testing a plant stress monitor that yields a "stress index" to enable turf managers to more accurately program irrigation needs.

The instrument has been placed in the hands of two golf course superintendents—one in the Cleveland, Ohio area, and one in the Atlanta area—for field trials. If tests are positive, it will be marketed to golf course superintendents and other turf managers.

The monitor, a hand-held "gun" attached to a computer worn at the waist on a should strap, monitors the physiological state of the turf. After measuring the plant's leaf temperature, ambient temperature, relative humidity and solar radiation load, the data is processed by the computer. The resulting "stress index" gives the turf manager information needed to analyze irrigation effectiveness and project irrigation requirements.

"There's still a question as to how we're going to release this

product," notes Steve DeSutter of Standard Oil of Ohio. "But we're working on an agreement with one of the major irrigation suppliers to the turf industry."

A specific release date is yet to be determined.

FERTILIZER

Lebanon Chemical expands fertilizer line

With the purchase of Tidewater Agri-corp Inc. of Chesapeake, Va., Lebanon Chemical Corp. significantly expands its liquid fertilizer line.

Tidewater has 20 fertilizer outlets in the coastal regions of Virginia and North Carolina. Last year, Tidewater's liquid fertilizer retail sales were in the multi-million dollar range.

Mark Nuzum, manager/agronomist at Tidewater's Chesapeake facility, will handle marketing and sales of the acquisition.

RESEARCH

Dutch find treatment for Dutch elm disease

Scientists at the Institute of Applied Chemistry in Zeist, Holland, have found a way to treat Dutch elm disease.

They have found that injecting a tree with fenpropimorph, a fungicide also used to treat mildew on cereal crops, will block the spread of the fungus that causes the disease. Fenpropimorph has been proven harmless to Dutch elms, but prevents the fungus from giving off

spores that spread the disease.

It can be used either preventatively or curatively. Used preventatively, it has been 100 percent effective.

Treatments of this kind are labor-intensive and, thus, expensive. But researchers at the Institute say a Dutch elm "vaccine" could be on the market as early as next year.

CHEMICALS

Turf regulator shows promise in Northwest

While turf growth regulators have won increasing acceptance in many parts of the country, they haven't been widely available in the Pacific Northwest. But research conducted with Limit turf regulator shows promising results for reducing grass growth in the particular growing and climatic conditions of Washington and Oregon.

Tom Cook, associate professor of horticulture at Oregon State University, has been testing the product in Oregon's Willamette Valley.

"We've seen the most impressive results on bluegrass," he says. "The treatment with Limit did not completely stop grass growth as some growth regulators do, but it did slow it down significantly. There was no visible discoloration or loss of turf quality."

Mike Vandecoevering of the Wilbur-Ellis Co. adds, "From what we've seen so far, it appears to have a real nice fit in our landscape management programs." The Wilbur-Ellis Co. has begun distributing Limit on a test market basis in Washington and Oregon.

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with even small PTO-equipped tractors. Adjustable reels work against heavy duty bedknives in individual cutting units that truly float over uneven terrain. And when the job's finished, this



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RESEARCH

Gypsy moth populations self-destructive?

According to researchers at Cornell University, gypsy moths may carry a chemical toxic to them in their bodies.

At least 10 percent of the moths in a test at the Boyce Thompson Institute for Plant Research are infected with a virus deadly to them which passes on to offspring. The virus produces no recognizable symptoms until it is triggered by an unknown catalyst.

Scientists at the institute plan to bombard a colony of infected gypsy moths with different types of stress in order to find the catalyst.

Virologist Alan Wood suspects that the trigger may be chemicals produced by trees or shrubs which the moths feed on, such as tannin. If they are right, they could eliminate whole populations of moths by spraying this chemical on infested areas.

Gypsy moths have destroyed millions of acres of forests in this country, mainly in the Northeast and Midwest. They attack more than 100 species of trees and shrubs.

INSECT CONTROL

New insecticide is tree extract

A new type of insecticide is based on extracts of neem, a common tropical tree. Tests show that more than 80 major insect pests can be controlled by neem extracts.

The first label for a commercial neem product was recently granted by the EPA for insect control on some

horticultural crops.

In tests, neem gave safe and inexpensive control of two formidable insects—the sweet potato whitefly and the Colorado potato beetle—which have gained resistance to many other insecticides.

PESTICIDES

Ciba-Geigy refutes EPA diazinon decision

Ciba-Geigy says the U.S. Environmental Protection Agency's decision to revoke the use of diazinon on golf courses and sod farms by the end of the year is based on "inadequate scientific review."

The insecticide has been linked to bird kills, according to the EPA.

Ciba-Geigy, major producer of the pesticide, says the EPA has "ignored the company's efforts to scientifically resolve concerns of certain uses."

The decision to ban use on golf courses and sod farms was based on documented evidence of bird kills, claims the EPA's George Larocca. The evidence was examined by the agency's Scientific Advisory Panel.

Diazinon has been registered for use on golf courses and sod farms for more than 30 years, and has been used on turf for more than 20.

Ciba-Geigy says in the news release that it tried twice in the last year to discuss the concerns with the EPA and was rebuffed both times.

"We were completely ignored," says Dr. Haney B. Camp, vice president of research and development for Ciba-Geigy's agricultural division. "Ciba-Geigy and the EPA have successfully resolved concerns many times in the past. We do not under-

stand why the agency has turned a deaf ear to us this time, in comparison with past experience."

This fall, the company will test new application rates and new formulations to reduce hazards to birds.

Use on residential and commercial lawns is presently under review by the EPA. That review will be completed by the end of the year.

PEOPLE

Adikes chairman passes away

Philip Adikes former chairman of J&L Adikes seed company of Jamaica, N.Y., died September 27th. He was 75. Adikes had been with the company for 34 years. He was a grandson of the founder, **Robert A. Russell**, Adikes president, will become chairman when purchase arrangements are complete.

Rain Bird Sales makes the following appointments: **Dick Schaeffer** is named a golf manager; **Bob Olson** is appointed Eastern regional sales manager for the turf division; **Bob Bernards** is Pacific Northwestern district manager for the turf division; **Bill Tullos** is named North/Central Florida district manager for the turf division. Rain Bird is headquartered in Glendora, Calif.

The American Society of Golf Course Architects accepts three associate members: **Bruce Borland**, Long Grove, Ill.; **Brian Silva**, Whittinsville, Mass.; **Michael Dasher**, Orlando, Fla.

Michael E. Leeson resigns as exec-

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utive director of the **California Landscape Contractors Association**. He leaves the group after 14 years to enter private business.

Roy C. Ontiveros joins **Pacific Sod** as turfgrass advisor and technical representative in Los Angeles, Riverside and San Bernadino counties. He is an 18-year green industry veteran.

Alamo Group names **Frank Hernandez** territory manager for the states of Nebraska, Kansas and Missouri. He's been with the company since 1980.

Yardmaster names **Michael S. Whitman** staff designer and **Kerry G. Kitchel** horticulturist in the sales and service areas. Whitman is the sixth landscape architect to join the company.

Michael S. Pratt joins **Erosion Control Systems** business of Gulf States

Paper Corporation as product manager.

Jacobsen Division of Textron Inc. names **Anthony Saiia** vice president of engineering and **Earl Klepel** vice president of manufacturing. The company names **Robert Krick** product manager while **Mark Foree, Jack Ball and Bill Swann** are appointed dealer sales managers for the Commercial Products line.

E-Z-Go/Textron names **Frank Smith** national sales manager for the reorganized Turf, Industrial and Commercial Vehicles Division. The restructuring divides the country into three regions—West, Northeast and Southeast—each under the direction of a regional sales manager. **Bill Manning** is West sales manager; **Steve Cotton** is Southeast sales manager; and **Jim Simmons** is Northeast sales manager.

E-Z-Go/Textron names **J. Hampton Manning** vice president of Turf, Industrial and Commercial Vehicles Sales.

Bob Knoche joins the Landscape and Turf Division of the **L.R. Nelson Corporation** as district sales manager for Southern California, Arizona and Southern Nevada. He has over 15 years of industry experience.

Tom Hashman is promoted to product development manager, Midwest region, for **Staufer Chemical's Agricultural Products Division**. He joined the company in 1979.

Barbara Craycraft is manager of all large accounts.

Cyanamid International Agricultural Division names **Bruce Andrews** vice president, pesticides. He was formerly director, animal products.

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IT'S NO JOKE

The numbers are growing...and women golf course superintendents are not only surviving, but thriving, in what was once considered a man's job.

by Heide Aungst, associate editor

It's a typical scenario: A golf course superintendents' meeting. The speaker gets up to the podium and starts to expound on his dry wit. "Did you hear the one about the guy who..." He glances around the room, and suddenly stops.

Oh no! There's a woman in the room.

"It's great, I know half of so many dirty jokes," says Sandy Bemis, superintendent of Renwood Country Club in Round Lake, Ill. "They see me sitting there and stop in the middle. Some day I'll have the guts to say, 'Never mind, I've heard this one.'"

Bemis knows a good sense of humor is the best ammunition in the male-dominated profession. "When an invitation says tie required, I put one on," she says.

The Golf Course Superintendents Association estimates 25 to 100 women golf course superintendents for 12,278 courses nationwide. GCSAA total membership is about 6,900.

It's difficult to pinpoint the exact number of women supers.

The GCSAA membership roster lists 40 women with distinctly female names. Another 40 people are listed by initials only, and about 70 have androgynous names.

"I thought about just using my first initial. That way they can't tell when you apply for a job," says Jo-Ann Eberle Ward, superintendent of Sunset Valley Golf Course in Pompton Plains, N.J.

Bemis and Ward both work at municipal courses. "No one has really broken into a Winged Foot or any of the conservative old clubs," says Shirley Talmadge, assistant superin-



Sandy Bemis, superintendent at Renwood Golf Course in Round Lake, Ill., repairs a tractor.



"She can already say 'pesticide' and 'irrigation,' and she can swing a golf club too," Jo-Ann Eberle Ward says of daughter Kate. Ward's husband John helps with the golf lessons.

tendent of the prestigious Winged Foot Golf Club in Mamaroneck, N.Y.

Talmadge has struggled through management changes at Winged Foot to work her way to second in command. "If I had brains in my head, I would have left," she says. "But because I'm a woman, I'm older and I'm on my third career, I felt the fastest way to get to the top was to stay with a top club."

Getting there

Women superintendents don't fit into any particular stereotype. Talmadge, at 37, is more than a decade older than

Bemis, 25. Ward is 32. Ward's husband John works in the industry, as a resort landscape manager. They have one daughter, Kate, almost 3.

Bemis's husband Ken is a flight instructor. They don't have any children.

Talmadge has never married.

The thing all three women do have in common is an avid love for the outdoors, and a determination to work there. But the paths which led them to the golf course are as different as greens and roughs.

"My mom wanted me to be an airline stewardess so she could get free



It's been tough for women to break into private clubs, says Shirley Talmadge, assistant superintendent at Winged Foot Country Club.

trips," says Bemis. "My dad didn't care what I did, as long as I didn't get dirty."

At 15, Bemis landed a job as a gardener on a golf course. The experience prompted her to take horticulture classes at a local vocational school.

Bemis excelled in floral design, but "went crazy" trapped inside a florist shop on nice days. That led her back to Midlane Golf Course as a seasonal worker for five years.

Then she got an assistant superintendent's job at Heather Ridge Golf Course. After three years there, she accepted a job at Renwood as an assistant. Within six months, the super left and she took over his responsibilities.

Today she oversees 138 acres on the 18-hole course, and two staffers.

No yelling

"At first it was real hard because you're telling men what to do," Bemis says. "So I didn't tell them, I asked them."

Bemis also finds golfers react differently to her than they might a male superintendent. "Folks out here are kind of surprised," she says. "They'll say 'I want to talk to the man in charge.' I get talked to rather than screamed and yelled at. They're more hesitant to yell at a woman."

Ward started as a secretary at the Playboy Resort and Country Club in northern New Jersey. But she wanted to work outside and applied for a job on the course. "When I first went for the job, I didn't realize it was male dominated," Ward reflects. "The superintendent said, 'I'll put it to you this way, kid. If you're crazy enough to want to work outside, I'm crazy enough to hire you.'"

After taking turf courses at Rutgers University, she became assistant superintendent at High Mountain Country Club in Franklin Lakes, N.J. Later

that year she became assistant superintendent at the Americana Resort and Country Club, where she worked on 27 holes and more than 700 acres of golf course and hotel grounds. The extra holes qualified Ward above other male candidates who applied for the superintendent's job at Sunset Valley, which she took in '84.

The course is 150 acres, with about

'My mom wanted me to be an airline stewardess so she could get free trips.'

Sandy Bemis
Renwood Country Club

300 rounds of golf played daily. She supervises seven full-time employees and usually three more during the golf season.

She says she's never had a problem supervising men. "I've made it clear that what I say goes, but they're entitled to their opinions," she says. "They know if they have a problem they can come to me."

Talmadge started in the pre-med program at Vanderbilt University in 1967. The pre-med experience gave her a solid chemical background which later helped her get her pesticide license.

She got a degree in anthropology and psychology, worked overseas in the importing business, and eventually ended up back in New York.

There she worked on a golf course for spending money. She fell in love with the job.

In 1981, she went to the University of Massachusetts for a two-year de-

gree in turf management. She completed her five-month work program with Ted Horton at Westchester Country Club. In 1983, she took a job on the crew at Winged Foot.

Several changes in superintendents left her in line for the assistant's job in late '84. But, she says, superintendent Bob Alonzi was hesitant to give her the title. "He said the foreman and crew wouldn't take orders from a woman," she said. "The first time he left, I had to tell them myself. I did all the records without the title. I had to prove myself over and over again."

The crew has nine full-time workers, with more than 20 in the summer. *Golf Digest* (Nov. 1985) ranked Winged Foot the fifth-best course in the country.

Getting physical

Greens committees are often hesitant to hire a woman superintendent. They argue that a woman can't handle the physical labor involved.

Women superintendents argue in return that it's like any other job—some women aren't cut out for it. But, then, some men couldn't handle it either.

"It's a crazy idea I've always had that if a guy can do it, I can do it too," Bemis says.

And, of course there's the "problem" of women becoming pregnant. "I dug up an irrigation break when I was six months pregnant," says Ward. "I worked up until a week before Kate was born."

Kate was born on Christmas day, "during the off-season, of course."

"I always say she'll be the second woman golf course superintendent," Ward jokes. "She can already say 'pesticide' and 'irrigation,' and she can swing a golf club, too."

Ward has a house on the golf course, which makes it easier to balance career and home. John drives more than two hours to his job, so Jo-Ann can keep her job.

Bemis also plans to have children and keep her job as superintendent. "In this day and age, unless you're really lucky, both people have to work. It's just another job," she says. "We'll just mount a child seat on the back of the tractor."

Women supers still have a long way to go. But Bemis, Ward, and Talmadge all advise starting as a crew member, getting an education, being involved with professional organizations like the GCSAA, and working within the system. "If you're going to be sensitive and try to fight intellectual white-collar battles in this field, you're not going to get anywhere," Talmadge says. **WT&T**

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TURF'S GRANDAME

It's really not a new trend for women to work as golf course superintendents. Just ask Virgie Ross.

A great-grandmother to four girls (she has two daughters, and two granddaughters), Ross retired from Homewood Golf Course, in Ames, Iowa, just four years ago.

In 1974, Ross became Iowa's first woman superintendent and one of the first women in the country to hold such a position.

"I lost my husband and I needed a job," she remembers. "The parks and recreation director had faith in me. He told me his demands, and I really had to work to be a Class A superintendent."

With old-fashioned savvy, Ross pioneered work in an area few women chose as a career. She inherited the job from her husband, Gerald, who died mowing greens in '74. But where another woman might look for more traditionally female work, Ross went to the parks and recreation director and asked for the job.

The physical labor involved was no problem. After all, she and Gerald had farmed together for more than 20 years, and she loved working outside.

Not for men only

In fact, because of her farming background, she never thought twice about the job being for men only.

"My feeling is that women can be in this as well as men," she says. "I come from an era where women were supposed to be careful lifting things. Sure, maybe they won't pick up a 100-pound bag, but then they can take two buckets and just carry smaller loads at a time."

By her definition, her career started in a one-room country school house in Winfield, Iowa, in the '30's, when she met Gerald. They married in 1937.

The two worked closely together at whatever task they undertook. They gave up farming in the '60's, several years after Gerald suffered his first heart attack.

They moved to Columbus Junction, Iowa, where Virgie ran a cafe and Gerald sold hog feed and worked at a gas station. The local banker was chairman of the golf course board and approached Gerald



Virgie Ross helped pioneer women working as superintendents. This photo was taken before her retirement four years ago.

with a superintendent's job.

The Musser 'bible'

He jumped at the chance and started attending seminars and reading everything he could on the subject. "Musser's old turf management book was his bible," Virgie remembers. "I thought he had it memorized."

In 1971, he wrote to Homewood Golf Course in Ames, Iowa, interviewed on a Wednesday and by the following Monday, they had moved to Ames.

Three years later, after Gerald's death, Virgie began running the course, attending classes, and becoming active in the GCSAA.

"I walked into one of the first meetings. They were playing golf, and they said, 'You can't play today. This is for golf course superintendents.' I said, 'I am a superintendent,'" Ross says.

But the job didn't go as smoothly as she thought it would. "The man who hired me believed in women being in men's work, if they can handle it," she says. "But he

moved to California and they hired another guy who resented me very much."

Her boss' prejudice against women forced her to retire when she turned 65.

"I wouldn't be sitting in this empty mobile home by myself if I hadn't had that boss," she says. "I resent drawing Social Security when I could be working. I can still sit on a tractor and mow grass."

Despite the loss of her job, she stays active with the GCSAA, handling the state newsletter, and attending national conferences.

Today, Ross says, Iowa has nine women superintendents. With fewer than 100 nationwide, Iowa may lead the country in the number of women running courses.

Women, she says, have a knack for detail, which can help beautify any golf course. And, as far as men working with women, she makes one simple statement:

"If they're a MAN—that's with capital letters—they won't resent it."

—Heide Aungst



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ALL SYSTEMS GREEN

The green industry is growing in all directions. An indication of this positive trend is the magnitude of chemical, equipment and seed purchases. So the state of the green industry, judging by a recent survey, is 'green and go' for 1987.

During 1986, readers of WEEDS TREES & TURF purchased almost \$2.5 billion worth of chemicals, equipment and plant material for landscape care.

Most of the purchases were split between equipment and chemicals, says an independent survey done for the magazine by Readex, Inc., St.

Paul, Minn. The Readex numbers closely parallel other studies like the Charles H. Kline Report released earlier this year.

Chemical purchases

The Kline statistics indicate a total market for turf and grounds pesticides of \$729.6 million; Readex indicates

that WT&T readers will make pesticide purchases of \$678.3 million (not including seed, sod, adjuvants, wetting agents and growth regulators).

Among WT&T readers, granular fertilizer continues to be the favorite. More than 7 out of 10 landscape managers opt to use it, resulting in \$262 million worth of sales. Liquid fertilizer is a distant second with 1986 sales of \$31.8 million to just one-fourth of the magazine's readers.

Herbicides remain the most popular of the pesticides in the green industry. Readers bought more than \$160 million worth in 1986, including almost \$100 million of pre-emergents.

Fungicide sales to WT&T readers were \$81 million and insecticide sales were \$72 million in 1986, the Readex survey suggests.

Equipment purchases

Readers report owning more than 124,000 tractors, 140,000 pick-up trucks, and 398,000 mowers, as well as a long list of other items (see charts).

The pick-up truck is the most popular piece of equipment. The average reader owns almost four pick-ups. Taken as a whole, pick-up truck manufacturers gained \$135 million in sales to readers of WT&T.

Likewise, more than \$100 million worth of irrigation equipment sales went to our readers, including nearly \$60 million worth of sprinklers. The average reader owns or has installed 362 sprinklers, two or three irrigation pumps and 22 electronic irrigation controls.

Though the most dominant piece of mowing equipment is the walk-behind rotary (six owned by the average reader) riding reels are the biggest expense. According to the Readex survey, WT&T readers purchased \$42.8 million worth of them, slightly more than the \$40.3 million the same readers spent on rotary riders.

Lots of plants

Not surprisingly, the biggest single expense for the typical landscape manager is for plant materials. Nearly

PREDICTED EXPENDITURES FOR 1986

Chemicals, supplies	Percentage reporting	Mean	Total Readership Projection
Adjuvant-spreaders	21.8	\$436	\$4,260,000
Aquatic herbicides	16.2	\$580	\$4,200,000
Dry-applied turf fertilizer	71.7	\$8,150	\$262,000,000
Fungicides	49.1	\$3,730	\$81,800,000
Growth regulators	21.8	\$427	\$4,170,000
Insecticides for trees/ornamentals	42.0	\$1,060	\$20,000,000
Insecticides for turf	49.9	\$2,330	\$52,000,000
Landscape fabric for erosion control	14.8	\$875	\$5,810,000
Landscape fabric for weed control	16.2	\$2,250	\$16,300,000
Landscape structures	20.3	\$2,842	\$23,245,000
Liquid-applied turf fertilizer	25.6	\$2,770	\$31,800,000
Plant materials	58.2	\$27,600	\$719,000,000
Post-emergence herbicides	62.0	\$2,570	\$71,400,000
Pre-emergence herbicides	60.1	\$3,650	\$98,200,000
Sod	36.7	\$6,080	\$99,800,000
Soil amendments	34.2	\$2,800	\$42,900,000
Tree fertilizer	34.2	\$911	\$14,000,000
Turf seed	71.4	\$2,920	\$93,300,000
Wetting agents	30.2	\$667	\$9,020,000