

I Love Gravelly



Ninety-six percent of the professionals, commercial users and homeowners we talked to told us they love the way their Gravellys perform. Go to a Gravelly dealer to test a riding tractor, two-wheel tractor or our Pro Series today. And fall in love with a Gravelly. **GRAVELLY**

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Circle No. 131 on Reader Inquiry Card

Included in the sale were manufacturing facilities at Old Hickory, Tenn., associated product patents, technology and inventories. The European-based business and manufacturing facility for "Tyrpar" was not included in the sale.

InterTech will retain most of the 375 Du Pont employees of the Old Hickory plant.

In addition, the Nicolan Corporation expanded and redesigned its line of "Armorform" revetment forming fabrics and is now offering it through the newly formed firm Texicon, with offices in Atlanta and Cleveland. Texicon has been appointed the exclusive U.S. representative for the products.

The new firm was established by fabric industry veterans Donald C. Dominske and Bruce Lamberton, formerly with Intrusion-Prepakt.

CHEMICALS

Riverdale gets label for post-emergency

Riverdale Chemical Company, Chicago Heights, Ill., has received EPA issuance of a product registration for Weedestroy Tri-Ester, a three-way, post-emergence selective broadleaf

herbicide.

The product contains esters of 2,4-D, mecoprop and dichlorprop, and is made for use on golf courses, parks, rights-of-way, sod farms, ornamental turf lawns and other non-crop areas.

According to the company, the herbicide resists washing from plants, has a greater herbicidal activity than the amine form, and can be used during cool weather, either later or earlier in the season.

GOVERNMENT

FDA lax in checking food for pesticide traces

According to a report from the General Accounting Office, the Food and Drug Administration rarely tests domestically grown food for pesticides, and stops the sale of the tainted food even less, the *New York Times* reports.

The GAO report stated that because the agency cannot monitor all food possibly containing illegal amounts of pesticide residues, it relies on spot testing of no more than one percent of domestically grown agricultural products as a deterrent.

In addition, those found to be selling tainted products are rarely penal-

ized, the report continues.

The GAO report recommends that FDA create guidelines for testing and suggests the agency petition Congress for the authority to slap perpetrators with civil penalties.

FDA does not have legal authority to hold domestic food while court action is being taken to remove it from the market. The agency relies on slow and expensive criminal suits against growers.

FDA has yet to take action on the report, according to the agency.

INDUSTRY

Seed contractor markets improved varieties

Cascade-International Seed Company, a new seed contractor based in Tulatin, Ore., plans to be a primary contractor and marketer of a number of improved seed varieties.

The company, a subsidiary of Jonathan Green & Sons, Farmingdale, N.J., will supply the parent company and other companies, and market Jonathan Green's new varieties. Those varieties include Mesa turf-type tall fescue and Destiny Kentucky

continued on page 36

NEW TURF-TYPE TALL FESCUES

Now, more than ever the choice of professionals.

Join the rapidly growing number who select Tall Fescue for:

- rich, dark green dense turf
- low maintenance
- soil and climate adaptability
- tolerance to shade and cold



- tolerance to heat and drought
- resistance to disease
- durability and longer wear
- year-round beauty and performance

Oregon Turf Type Tall Fescue has all the superior qualities you want and need: beauty and rugged stability. Demand the perfect choice for low maintenance turf, ideal for playing fields, parks, home lawns, airfields, roadways, industrial and commercial sites and more.

For more information contact your seed dealer, or write to:

OREGON TALL FESCUE COMMISSION
2140 Turner Rd. SE., Salem, Oregon 97302
Phone (503) 585-1157

NOW YOU'VE GOT TWO CONVENIENT WAYS TO APPLY THE NUMBER 1 NAME IN TURF HERBICIDES.

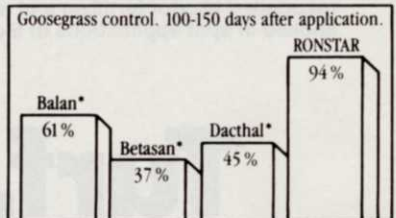


With Chipco® Ronstar® G and new Chipco Ronstar WP, problem weeds never see the light of day.

Golf course superintendents have made Chipco® Ronstar® herbicide the product of choice for pre-emergence weed control. And rightly so.

Just one application of Chipco Ronstar provides season-long control of 25 tough broadleaf and grassy weeds. Without the root pruning or leaching you get with other turf herbicides.

Plus, Chipco Ronstar still ranks as the Number 1 way to control stubborn crabgrass and goosegrass. Test results prove it.

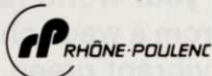


Summary of 9 years of testing conducted by University Experiment Station and Rhone-Poulenc personnel.

And now, Chipco offers you the choice of easy-to-spread Chipco Ronstar G granules or easy-to-spray Chipco Ronstar WP wettable powder.

So start the season with Chipco Ronstar G or new Chipco Ronstar WP—the best way to keep weeds out of sight and out of mind.

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HERBICIDE

Please read label carefully and use only as directed. Apply Ronstar only on turfgrass varieties included on the label.

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Before

These "Before" and "After" pictures were sent to us by a user in Texas. The turf was very chlorotic, obviously dry, and had not responded to prior fertilizer and water treatment. Ferromec was applied in split applications of 5 ounces per 1,000 square feet.



After

The initial response in 48 hours was very dramatic and, as the "After" photo demonstrates, chlorosis was eventually eliminated. Don't you have a spot where you would like to test a sample of Ferromec?

Turf, Shrubs, Plants Green Up in 48 Hours With Fe^{++} RROME[®] Iron

Let us send you a sample of Ferromec so you can see for yourself how fast, easy, and economical it is to change the color of your world (and perhaps your wallet) from a weak chlorotic yellow to a strong, vibrant green.

Everett Mealman, *President*
PBI/GORDON Corporation



Thousands of turf and landscape professionals, as well as countless nurserymen, used Ferromec for the first time in 1986, and to summarize their response in one sentence...

"...Thanks! I needed that!"

Ferromec causes green up virtually over night in some instan-

ces. It speeds up the activity of herbicides. It reduces the tendency to over-fertilize in an effort to produce fast color. It provides a quick therapeutic shot of iron ...and it does all this so easily and economically that the practice of using expensive, slow-working chelated iron will never be the same again. Nor will the practice of over-fertilization.

No wonder we are so eager to get a sample of Ferromec in your hands!

The Facts About Ferrous Iron and Ferromec

Perhaps you are interested in knowing why it is that Ferromec is able to produce such a superior response. It's because of a patented process that enables us to actually bond a ferrous iron molecule to a molecule of urea, so that the iron is stabilized in the ferrous state.

As you know, only iron that is in the ferrous state can be utilized by a plant. But *ironically*, untreated ferrous sulphate turns to the non-usable ferric state almost immediately when it is applied.



Before



After

Trees, shrubs, and herbaceous plantings will respond to Ferromec as dramatically as turf, when they are deficient in iron. These before-and-after pictures show how Liriope greened up when Ferromec was applied in August of 1986.

Thus it is that scientists devised chelating to fix the iron molecule in the ferrous state. If chelating is properly done it is effective, but it is very expensive and is so slow to release that it takes a long time to produce a significant color change.

Ferromec, on the other hand, works right now! The PBI/Gordon patented process of bonding ferrous sulphate to the urea molecule not only keeps the iron stable, but also speeds up the process of plant intake.

Because plants have such a voracious appetite for nitrogen, they ingest Ferromec right now via foliar intake to get the urea, and presto-chango...they ingest the iron right along with the urea, and it's green-up time in your world.

New Formulas for Multiple Tank Mixing and Soil Deficiencies

Amid last season's applause for Ferromec were several friendly tips for making it even better.

First of all, some lawn care companies wanted enhanced iron mixing compatibility for multiple tank mix situations containing an amine herbicide. To fill this need we have developed Ferromec AC.

Others wanted an amine compatible Ferromec containing manganese, and for them we developed Ferromec MAC as well as Ferromec M. Still others wanted a Ferromec to use in situations where there are multiple micronutrient deficiencies, and for them we have developed Ferromec MZ.



Ferromec® is a registered trademark of PBI/GORDON Corporation.
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Samples available only while supply lasts.



These side-by-side containers of Manhattan Euonymus, pictured at a nursery, show what Ferromec can do for the nurseryman. The plant on the right was as chlorotic as the one on the left before it was sprayed with Ferromec.

If You Have Questions About Iron, Talk to Ironman Himself.

Iron is definitely established as an essential micronutrient required by all plants. Yet, the amount required can vary dramatically depending on the pH of the soil, the composition of the fertilizer that is being used and the plant that is being fed.



To help you better understand how to use iron in your turf program, we invite you to visit with Neal Howell, our Plant Nutrition Product Manager. He is a leading authority on iron and is as near as your telephone when you have questions.

You'll like Neal. He lives, eats, and sleeps iron. Talk to him for a few minutes and you'll know why everybody calls him *Ironman*.

For your FREE SAMPLE*, or the answer to questions about Ferromec, call:

**Toll-free
1-800-821-7925**

In Missouri 1-800-892-7281



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LIQUID IRON 680-1186

Seed Markets from page 32

bluegrass, produced by Jacklin Seed.

Other new varieties and releases include Allaire turf-type perennial ryegrass, Azetec turf-type tall fescue and Lexington Kentucky bluegrass. More varieties, mixes and brands are planned for future release.

The new company is run by seed industry veteran Irv Jacob, who started in the industry in 1960 at age 14. Jacob is noted for negotiating contracts with railroads for shipment of seed in boxcars, which helped reduce shipping costs and increased annual ryegrass usage in 1984 and 1985.

CONFERENCES

Good forecast coming from International Fair

Word from the 14th International Garden Trade Fair, September 28-30 in Cologne, West Germany, is that improved lawn maintenance is becoming big business on an international scope.

Increased demand was seen in both the domestic and export business by 26,000 visitors from 67 countries.

Exhibitors displayed products ranging from greenery to garden furniture. Firms displaying lawn care equipment reported better sales than last year, aided by new product introductions and an increased foreign attendance, which often rose above the 40 percent mark in this exhibit section.

New lawn mower models featured reduced noise emission, low oil-temperature operation, and engines running on no-lead gasoline fitted with catalytic converters.

The 1987 show will be held September 6-8, running concurrently with the International Trade Fair of Sporting Goods, Camping Equipment and Garden Furniture.

RESEARCH

Cloning takes step toward turfgrass use

A researcher with the Institute of Food and Agricultural Sciences (IFAS) has developed a seed clone dehydration technique using the forage orchardgrass and grape which brings the possibility of improving "nature's time capsule" a step closer.

"We've been able to create plant clones for some time, but we hadn't been able to figure out a way to make them stop growing until we were ready to plant them," says developmental biologist Dennis Gray.

Gray, who does research on somatic embryos, or plant clones, out of IFAS's Leesburg, Fla., Agricultural Research and Education Center, says the findings carry far-reaching implications.

He discovered that by drying the tiny plant clones, a portable synthetic seed system is created which growers could apply for practical planting.

The dehydration research is the first of its kind done successfully. Despite low germination rates, Gray hails the research as a "breakthrough in synthetic seed research."

Though his research will be directed mainly toward agronomic applications, Gray says the research will eventually grow into the turfgrass and landscape markets in some way.

By means of cloning, researchers will be able to develop a seed that is the elite of a species. Logical applications for the technology would be in turfseed development.

"Synthetic seeds bypass sexual reproduction," he explains. "We'll be able to choose the best plants to clone, and we'll be able to commercially propagate hybrids and genetically engineer plants."



4-Gallon Timesaver

When you buy a commercial mower from Kees, you get a big, 4-gallon fuel tank, because at Kees, we know what you want from a mower. You want it to get you through tough mowing jobs quickly and efficiently. But stopping to gas up slows you down.

So does mower downtime. That's why Kees mowers are built with superior materials and workmanship that gives you years of dependable, trouble-free service.

All Kees heavy-duty commercial mowers feature sleek design, Ultra High-Lift blade and fully baffled underdeck for close-quarter mowing and efficient grass clipping discharge.

Kees mowers are built with the operator in mind, with easy-operating fingertip controls, quick cutting height adjustment. Options include easy-riding sulkies, large capacity grass catchers and electric-start engines (48" and 60" models).

There's a Kees Mower for every job. Choose the one that's right for you — 32", 36", 48" or the big new 60" model. But choose Kees, because we know what you want in a commercial mower.

Built by Professionals ... for Professionals.

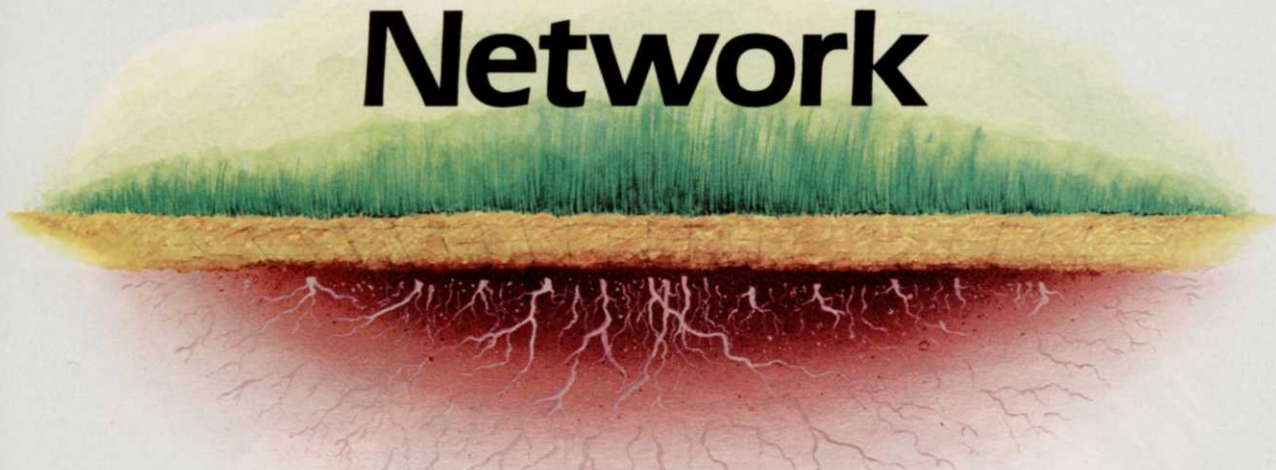


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North American Green has a nationwide network of specialized distributors who will provide comprehensive, practical experience to determine your specific erosion control needs. These distributors are backed by our Technical Sales and Research & Development people, the most experienced team in the business.



Our blankets stabilize soil to help nature prevent erosion. They provide an environment in which a growing ground cover — with its network of roots — can flourish. The resulting growth is nature's own form of permanent erosion control.



Depending on the degree of slope and anticipated water flow, one of our many types of erosion control blankets can be applied to bring even severe erosion problems under control, regardless of where or what type of climate the application may be.



Our products define the state of the art: the competition judges itself by how close they can come to the standards we set.

North American Green's blankets are easily installed, fastened in place with six-inch staples dispensed with our time-saving SureLock staple gun. No skilled labor is required for installation.

With the help of these products and this team, you can develop your own total erosion control program.

Write or call today if you want the definitive answer to your soil erosion problems. We'll be happy to have you in our network of customers.



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ARSENAL. BECAUSE NATURE ISN'T AS TOUGH AS SHE LOOKS.

Killing weeds is easy. Unfortunately, so is harming inhabitants of the environment — no matter how unsusceptible they seem. That's why Cyanamid developed ARSENAL® herbicide. Its advanced chemistry does the job on weeds. Without getting tough with nature.

WHY ARSENAL IS EASY ON THE ENVIRONMENT.

Because of its unique mode of action, ARSENAL, when used as directed, has no harmful effects on mammals, fish, bees, birds or earthworms. Because ARSENAL is non-volatile and doesn't move laterally in the soil, off-target vegetation is unaffected. ARSENAL is nonflammable. Its unique chemical activity causes a slow "brown-out" in foliage, so it poses little fire hazard. Unlike tank mixes, ARSENAL introduces only one biodegradable product into the environment. And it's applied only once during a season, resulting in a lower chemical burden and a reduction in "touch-up" treatments.

CONTROLS MORE UNDESIRABLE VEGETATION.

ARSENAL has demonstrated control of a broad spectrum of weeds, vines and brush species. Tests in southern states showed that ARSENAL alone (at a rate of two quarts per acre) out-performed several tank mixes for annual and perennial weed control. Even more impressive, ARSENAL was most effective on difficult species like Johnsongrass, trumpet creeper, kudzu and red maple.

ONE APPLICATION GIVES SEASON-LONG CONTROL.

ARSENAL gives you full-season control for up to eight months in temperate climates. It fits your spray schedule, because it can be applied at any time

Always read and follow label directions carefully.

TOUGH ON WEEDS. EASY ON THE ENVIRONMENT.

during the growing season. ARSENAL controls not only existing vegetation, but also new weeds that germinate after application. So you get residual control for the rest of the season. On hard-to-kill vegetation, ARSENAL keeps working on the roots until complete control is achieved. In spray solution, ARSENAL is stable for several days. That means no waste due to decomposition, and no chance of under-dosing target vegetation.

ARSENAL offers broad-spectrum control, including these tough species:

Johnsongrass	Dallas grass
Trumpet creeper	Bindweed
Poison ivy	Canada thistle
Greenbriar	Foxtails
Redvine	Red maple
Kochia	Kudzu
Multiflora rose	Sumac

DUAL ACTION CONTROLS IN A WHOLE NEW WAY.

Unlike many other herbicides, ARSENAL is absorbed through both roots and foliage to stop new plant cell growth. Vegetation absorbs ARSENAL in less than two hours, so rain won't wash off your investment. Within four hours, plant growth ceases. In perennials, ARSENAL translocates thoroughly in the roots to prevent regrowth. This unique chemistry makes the visible results of control more gradual. In some vegetation, loss of color and other outward signs may not be apparent for weeks after application. After a year or more, returning vegetation is mainly desirable annual grasses and legumes.

ARSENAL IS RIGHT FOR YOUR RIGHTS-OF-WAY.

On railroad, highway or industrial rights-of-way, around power substations, signal boxes, bridge abutments, lumber or freight yards — wherever you need annual total vegetation control, ARSENAL is the smart new choice for the job.



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Agricultural Division
Wayne, NJ 07470 © 1986

IN THE GREEN

WEEDS, TREES & TURF's search for the top money-making landscaping companies in the nation turns up some interesting numbers

by Jeff Sobul, assistant editor

By a landslide, the largest landscape contractor in the nation is Environmental Industries, Inc., of Calabasas, Calif.

Environmental Industries is involved in every facet of landscape contracting, but mostly in larger and more complex commercial, industrial and public jobs.

According to Burton Sperber of Environmental, the company pulls in gross revenues of around \$2 million each week. That's as much as some of the companies in WEEDS, TREES & TURF's 1986 Top 50 make in a year.

Sperber says the 38-year-old company achieved its present size by doing a quality job, and doing it quickly.

One of Environmental's closest competitors for top money-making honors, The Brickman Group, declined to participate in this year's survey.

The next closest contractor is DeLaurentis Landscaping, Inc., of Mamaroneck, N.Y., which expected gross revenues totaling \$13 million. Rounding out the \$10 million-plus club are (sales in millions in parentheses): Vidosh Brothers, Sterling Hts., Mich. (\$12.5); Davis Landscape Contractors, Inc., Harrisburg, Pa. (\$10); The Bruce Company of Wisconsin, Inc., Middleton, Wis. (\$10); and Lancaster Landscapes, Arlington, Va. (\$10).

Interestingly, of those, only Environmental Industries operates in a warm weather area. This trend holds true for the remainder of the Top 50 as well. Nearly twice as many this year come from cooler weather areas.

It should be noted, however, that four of last year's top 10 companies did not participate in the survey this year. Of those, three were from warm weather areas.

On the average

WT&T's Top 50 grossed approximately \$337,568,000 in 1986,

an average of about \$6.4 million per company (without Environmental Industries' \$104 million, the average is closer to \$4.6 million per company).

The companies averaged 2.2 branches, with 14 companies working out of a main office only. During peak season, Top 50 companies employed 8,363 people, or 161 per company, and 5,157 year round, an average of 99 per company.

Design and construction jobs totaled 13,340, an average of 272 per company. Top 50 companies also did 5,488 maintenance jobs in 1986, 110 per company. (EDITOR'S NOTE: figures for design/construction jobs were not available for three companies; for maintenance contracts, two companies. Environmental Industries figures were not yet compiled for either category. Averages were calculated using only those companies that could provide those numbers).

The following is a list of companies which allowed WT&T to use information provided in their surveys (branch offices are in addition to main offices):

The Bruce Co. of Wisconsin, Inc., Middleton, Wis., made the \$10 million club on 400 design/construction jobs and 36 maintenance contracts. From one branch office, the company sends out 350 employees peak season and 200 year-round.

Clawin & Dorward, Novato, Calif., placed 8th this year on \$9.3 million in gross revenues from 176 design/construction jobs and 220 maintenance contracts. The company has five branches, and employs 180 peak season, and 150 year-round.

Clark-Morrell, Inc., Lithonia, Ga., turned 125 design/construction jobs and 60 maintenance contracts into revenues totaling \$5.2 million. Out of a main office, the company sends 115 employees peak, and 90 year-round.

Contra Costa Landscaping, Inc., Martinez, Calif., grossed \$2.8 million in 1986 from 15 design/construction jobs. Figures for maintenance contracts were

unavailable. With two branches, the company employs 55 peak and 40 year-round.

Clarence Davids & Sons, Inc., Blue Island, Ill., did 750 design/construction jobs and 125 maintenance contracts en route to \$3.5 million in revenues. The company employs 120 peak and 30 year-round while operating one branch office.

DeLaurentis Construction Co., Mamaroneck, N.Y., saw revenues more than double from last year, placing it second this year with \$13 million on the strength of just 40 design/construction jobs. The company has no maintenance contracts. With one branch office, employees number 120 peak and 40 year-round.

East Side Nursing, Inc., Groveport, Ohio, joins the Top 50 with revenues of \$4 million from 3,000 design/construction jobs and 100 maintenance contracts. Operating out of one main office, the company employs 150 peak and 25 year-round.

Environmental Industries, Inc., Calabasas, Calif., is this year's top entry, grossing \$104 million in 1986. Its 2,000 employees work out of 20 offices.

Greathouse Landscape Co., Inc., Nashville, Tenn., remained in the Top 50 with \$3 million in revenues from 285 design/construction jobs and 82 maintenance contracts. Its 65 employees peak and 51 year-round work out of one main office.

Greenleaves, Chamblee, Ga., grossed \$4.8 million in 1986 from 34 design/construction jobs and 86 maintenance contracts. Year-round, Greenleaves employs 105, and 150-170 during peak season. The company operates three branch offices.

Greeno, Inc., Concord, Mass., grossed \$3.4 million on 45 design/construction jobs. Its 15 year-round and 75 peak season employees work from one branch office.

Greentree, Inc., Stone Mountain, Ga., turned 400 maintenance contracts into \$4.7 million gross. From three branch offices, the company sends out 140 employees peak, 90 year-round.

Ground Control Landscaping, Inc., Orlando, Fla., grossed \$4.3 million from 15 design-construction jobs and 75 maintenance contracts. From one main office they send 90 year-round and 100 peak season employees.

The Ground Crew, Inc., Arlington, Tex., grossed \$3 million from 48 design/coconstruction jobs and 350 maintenance contracts. Its 120 peak and 28 year-round employees work out of three branch offices.

Heyser Landscaping, Inc., had \$5.9 million revenues from 107 design/construction jobs and 100 maintenance contracts. During peak season, the company adds 100 employees to its 65 year-round staffers, while operating one branch office.

Hillenmeyer's, Lexington, Ky., operates two branches while employing