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FLAT AND HARD

That's what the concrete is like after Lion Landscaping has installed it. Concrete work has proven to be a profitable addition to this Washington, D.C.-area business.

by Jerry Roche, editor



Concrete is poured with the use of a concrete pump tank (in background). Notice two concrete trucks pouring at the same time.

ike Uzzo sees a future in concrete.

Uzzo, owner of Lion Landscaping of Mt. Airy, Md., thinks landscape contractors can take advantage of this unique business opportunity. He certainly has.

Uzzo contends that, if the contractor is capable of laying the concrete floor to new industrial/commercial buildings, he has a head start in bidding on the landscaping of the finished site.

"When we do the concrete, we have no trouble getting the landscaping," he says. "Landscaping is the last thing developers think of, but I'm on them early—very early."

The average concrete-laying job (Uzzo calls them "pours") lasts 2.75 days, according to his records. That means in excess of 100 jobs per year. And they are becoming more frequent. "In 1985, 51 percent of our business was landscaping; in 1986, 65 percent of the business was concrete laying," Uzzo points out.

"It's to the point that all I do now is oversee landscaping. But concrete, I'm totally involved in—70 percent of my time."

Some similarities

The different types of contracting jobs have similarities.

Both, for instance, deal with perishable products. Shrubs, to take an example, usually have to be on-site within a few hours of the actual installation. Concrete must be delivered expensive."

Uzzo has a strong background in concrete pouring, though his formal education is in horticulture.

He graduated from Penn State University, home of the Nittany Lion football team, in 1980. (Hence the business name, Lion Landscaping.) His advisor at Penn State was Thomas Watschke, Ph.D., who he often telephones with questions.

But...

"My father sells concrete, so I've been around it all my life," Uzzo says. "When I was in school, I did concrete work in the summer. All my on-thejob training has been in concrete.

"I learned how to read a blueprint on the job. And I knew deep down that doing the big floors is what I wanted to get back into."

Modest beginnings

The company was begun in 1980, from virtually nothing.

"I went door-to-door at night during the summers selling landscaping," Uzzo remembers. "One night, I got three small jobs—all from Penn State graduates. When I got out of school, the biggest thing was—bang!—taking the first step. I started working out of my LeMans coupe.

Uzzo's brother Peter is a partner.

"Our first good-sized job was a retaining wall we had to put up. Because we didn't have much equipment, we

More labor costs are involved in landscaping; more equipment costs in concrete jobs.

within one hour of the pour.

Both are labor intensive, too. But more labor costs are involved in landscaping; more equipment costs (concrete, wire, etc.) in concrete jobs. It is apparently more difficult to bid concrete jobs, but the job itself is easier than installing a landscape.

Also, "you really don't want to screw up a concrete job," Uzzo contends. "Having it broken up and dumped after it's dried is real, real tried to do it all by hand, but we ended up calling a buddy who had a backhoe."

From that humble beginning, the business quickly propsered. "I always wanted to have my own business," Mike says. "I took business courses in college, and I used to sit in on concrete courses. So I knew that all the money we made we had to put right back into the company. We bought very slowly." continued on page 44



Some of life's best lessons are learned in the school of 'soft knocks'

The young man on the left will fall several times before he hits his first home run. The young man on the right wants him to have the advantage of falling on real turf.

We think it's curious that the same lawmakers who insist that individuals and corporations make environment and products safer for children neglect to legislate safer standards for school playgrounds.

It's no doubt easier to make us spend our own cash to improve conditions than to appropriate public funds for safe playing areas.

Things are changing ... slowly ... but NSTC has been instrumental in distributing information and

talking to some appropriate people, but it all takes time and money.

While we're waiting for the big picture to change, we can all improve our little corner ... like planting an improved turf plot of our own, then using it! When officials see how much more fun we're having, they'll no doubt want in on the action.

For free brochure and membership application, call or write to Fred V. Grau, Chairman



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CONCRETE from page 42



Mike Uzzo, concrete merchant, on the way to another job.

Mike's wife Mari, a Penn State graduate with a degree in finance, is the company's bookkeeper.

"Peter is mechanically inclined," Mike observes. "I'm more customeroriented. We complement each other. But at one point, the books were flatout burying me. So we brought Mari into the picture. Take me and my brother, plug her in there, and you're talking about everybody complementing in all directions."

Even Uzzo's father enters the big picture. "He's been very, very instrumental in drumming up business," Mike admits. "He's selling concrete and the people are always asking him if he knows any concrete contractors.



'Yeah, my sons,' he tells them."

Most of the company's business is in Montgomery and Frederick counties (Maryland) and Washington, D.C. proper. Twelve employees handle jobs like the White House (where Lion installed topsoil and sod at a new gate) and the Square 37 Hyatt Regency in Georgetown (a \$79,000 job). When there's a lot of concrete-laying to be done, the payroll expands to 20.

"When we started out, we were 100 percent residential," Uzzo notes. "Now, we are 80 to 85 percent commercial/industrial. And most of the homeowner work is in the Potomac area in Maryland—big, nice jobs."

A nursery, too!

Besides the nursery holding 3,000 to 4,000 trees in Mt. Airy, Lion Landscaping also lists pick-up trucks, a backhoe, an International 1900 DT, two trailers, two four-wheel-drive Kubotas, a Ford F-100 and a tree spade as assets.

Yes, the company installs massive concrete floors. But it also does driveways, sidewalks and patios. The company retains its original landscape design/build business and also hydroseeds with a Finn 1500-gallon hydroseeder. But growth remains slow—by design.

"It didn't take me long to figure out that the more employees, the more headaches," Uzzo says. "I'm as big as I want to get. I don't need any more headaches.

'It didn't take me long to figure out that the more employees, the more headaches.'

> —Mike Uzzo Lion Landscaping

"I also don't have the overhead of the big guys. Man, you get that big and it's like a big Pac-Man game: you've got to keep feeding!"

Thus, Lion Landscaping doesn't go after the "big" jobs. "Working with the big guys downtown was such a headache. They push you so they can get done quickly. Ruppert, Chapel Valley—companies like that go after the big jobs. That's the kind of job they're geared for. I'm not geared for them."

Mike Uzzo, however, remains content with that philosophy.

"We hop back and forth: concrete, landscaping, hydroseeding. Hey, I'm happy."



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JOBTALK

Thorny flora makes a good-looking fence

If the old adage is true that good fences make good neighbors, then a natural, living alternative to the traditional wire, wood, or block fence may give you great neighbors.

This new idea in fencing is called the Living Fence and it's marketed by Barrier Concepts, Inc., of Oak Ridge, Tenn. It is a hardy, rapid-growing plant that requires minimal maintenance yet is capable of quickly becoming a formidable barrier fence.

The plant was introduced to the American market two and one-half years ago and has been successfully maintained in in a wide variety of climates, including California, Idaho and Florida.

Nicknamed "PT" for "pain and terror," the plant is an import from China. Its exact identity remains a secret as the company seeks to to protect its import rights.

Beware of its thorns

The Living Fence is described as a hedge-like plant that shows white spring blossoms every third to fifth year. It also offers aromatic fruit in the fall and year-round greenery. To date it has been marketed most successfully to military installations as well as commercial, homeowner and low rental properties.

One of the reasons the plant makes an effective barrier is its three- to fiveinch stout thorns, which are complemented by stems that are so tough an intruder would need a bolt cutter to get through them. In fact, a company spokesman said the plant is so strong that, in its mature state, it can actually

The Living Fence is so strong that, in its mature state, it can actually stop a one-ton vehicle.

stop a one-ton vehicle.

The normal growth rate of the Living Fence planted in a warm climate is about 15 to 30 inches annually. In colder climates it will grow about 12 to 18 inches a year. It can reach heights in excess of 20 feet or, if trimmed regularly, will form a thick, virtuall impemetrable brush.

The plant needs only three inches of water a year to survive, but additional water will contribute to its growth potential. It can be



The Living Fence is a bushy plant from China that will grow up to two feet a year in practically any climate. It's stems will become so strong that a bolt cutter would be needed to get through them.



Thorns as long as six inches are part of the reason why the plant is nicknamed "PT," for "pain and terror."

trimmed and shaped to be an aesthetically-pleasing barrier, as well as one that can stop people, animals and—if necessary—vehicles.

Data shows that the Living Fence can thrive regardless of heat stress, excessive moisture, drought stress or cold temperatures. In addition, the plant has proven to be disease- and insect-resistant.

Cheaper than chainlinks

The cost of the Living Fence will vary according to the maturity of the plant and the number needed, but as a rule of thumb, it costs about one-fifth as much as what you're likely to pay for a chainlink fence. A 12- to 18-inch plant is priced at \$5.50.

For that reason, this hardy, natural barrier appears to be a fair deal, especially if a pleasant appearance is as important a consideration as effective security. Therefore, it's a plant that is likely to prove popular wherever intrusion has to be controlled but where people want something nice to look at and enjoy.

For additional information about the Living Fence, write Barrier Concepts, Inc., at 701 Scarboro Rd., Suite 2020, Oak Ridge, TN 37830; or phone them at (800) 356-5021.

—Stephanie Slahor

EVENTS

DECEMBER

14-16—Desert Turf and Landscape Conference, Tropicana Resort and Casino, Las Vegas, NV. Contact: Bob Morris at (702) 731-3130.

JANUARY

4-6: Mid-Atlantic Nurserymen's Trade Show, Baltimore Convention Center, 1 West Pratt Street, Baltimore, MD 21201. Contact: Mid-Atlantic Nurserymen's Trade Show, Inc., PO Box 314, Perry Hall, MD, 21128.

7-10: Grower Expo '89, Pheasant Run, St. Charles, IL. Contact: GrowerTalks Magazine, PO Box 532, Geneva, IL 60134-9912.

9-11: Cornell Cooperative Extension Turfgrass Short Course, Cornell University, Ithaca, NY. Contact: Joann Gruttadaurio, extension associate, (607) 255-1792.

9-11: Maryland Turfgrass '89, Baltimore Convention Center. Contact: Dr. Tom Turner, University of Maryland, (301) 454-3716.

Wisconsin Turfgrass Association Annual Conference, Jan. 10-11, 1989; Pewaukia (Wisc.) Country Inn. Contact: Wayne Otto, Box 458, Mequon, WI 53092; (414) 242-0142.

10-11: Virginia Professional Horticulture Conference and Trade Show, Virginia Beach Pavilion. Contact: Jeff Williams, VPHC, PO Box 6291, Virginia Beach, VA 23456; (804)487-4988.

10-12: Pacific Coast Nursery Industry Seminar, California Polytechnic State University, San Luis Obispo. Contact: Paula Schaeffer, California Association of Nurserymen, 1419 21st St., Sacramento, CA 95814; (916) 448-2881.

11-13: Eastern Pennsylvania Turf Conference and Trade Show, Valley Forge Convention and Exhibit Center, 1200 First Ave., King of Prussia, PA. Contact: Dr. Thomas Watschke, Penn State University, Department of Agronomy, 405 Agric. Admin. Bldg., University Park, PA 16802; (814) 863-1613. 12-13: Rocky Mountain Regional Turfgrass Conference, Lory Student Center, Colorado State University, Fort Collins, CO. Contact: Dr. Tony Koski, Department of Horticulture, Fort Collins, CO 80523; (303) 491-7070.

13-15: Sports Turf Manager's Association Annual Meeting and Conference, Dodgertown, Vero Beach, FL. Contact: Melissa, (714) 981-9199.

15-18: IPM Short Course, University of Maryland, College Park, MD. Contact: Lee Helman, (301) 454-7130.

15-18: The 41st Annual California Weed Conference, Red Lion Inn, 222 N. Vineyard, Ontario, CA 93764; (714) 983-0909. For more information or to register contact: Cooperative Extension, University of California, (209) 488-3285.

30-Nov. 2: National Institute on Park and Grounds Management annual educational conference, Omni International Hotel and Expo Center, Orlando, Fla. Contact: Nancy Abel, National Institute, P.O. Box 1936, Appleton, WI 54913; (414) 733-2301.



Circle No. 129 on Reader Inquiry Card

PRODUCTS

Three new Grasshoppers feature hydrostatic drive

Three new direct drive hydrostatic direct drive models have been added to the company's line of zero-turn-radius outfront mowers.

A result of Grasshopper's collaboration with Eaton Corporation, the Gemini/Eaton direct drive system is designed specifically for turf mowing applications.

All systems and engine combina-



tions are designed to enhance productivity and ensure ample power in demanding commercial applications.

A dual-level control system makes for easy steering, speed, turning, braking and instant forward and reverse capability.

Zero-turning radius and outfront deck design allow operators to precisely mow around and between obstacles.

A complete line of optional atachments are available for each of the 718 Series Models.

Circle No. 190 on Reader Inquiry Card

Zero turning radius big feature for 1989 models

Dixon Industries' line of zero turning radius riding mowers will now contain six models, with the addition of the ZTR 304 and ZTR 361.

The 304, Dixon's first steel-bodied



mower, makes a 30-inch cut, and is powered by a 10-hp Briggs & Stratton engine.

The 361 features a 36-inch deck, a 12-hp Briggs & Stratton engine, and an electric blade clutch.

Other models range from 12-18 hp , and all feature zero turing radius and fingertip control.

Accessories include a catcher, tine rake, snowblade, tire chains, wheel weights and canvas mower cover. **Circle No. 191 on Reader Inquiry Card**

High-rotation sprinkler quick, covers lightly

Hunter Industries has introduced the I-42 sprinkler, designed "for irrigation situations where a fast, light application of water is desired."

The gear-driven model can be used for syringing golf greens and light irrigation of clay tennis courts, skinned baseball diamonds and horse race tracks. According to Hunter, the sprinkler also works well to control frost.

Its 4-inch pop-up stroke incoro-



rates all the standard features of Hunter's Institutional Series, including a safety-cushioned rubber cover, locking body cap, and slip clutch protected drive sytem. An interchangeable nozzle-stator set supplied with each sprinkler allows the discharge rate to be adjusted from 6.5 GPM to 25.8 GPM. The I-42 is available in 17 fixed arcs of coverage and a full circle. **Circle No. 192 on Reader Inquiry Card**

18 horses supply power for hydrostatic riding mower

An 18 hp, twin cylinder Kohler engine provides the power for Scag's new, hydrostatic riding mower, available with a 61- or 72-inch cutting deck.

Scag says an exclusive hydraulic cooling reservoir offers twice the cooling surface of any in the industry. A 5-gallon polyethylene fuel tank and oversized tires are standard features.



Circle No. 193 on Reader Inquiry Card

Sidebrush main feature of Tennant mid-size scrubber

The 528—Tennant's latest mid-size scrubber—features an optional retracting sidebrush for easy cleaning of walls, pallets, machines or racks.

The sidebrush applies solution, scrubs and closely follows the contour of eneven edges as it cleans. For safety, the brush retracts upon imact and in reverse.

Also available is a Solution Recycling System that cleans up to four hours without refills, and, according to Tennant, covers up to six times more area than conventional models. The system filters and clarifies scrub water, then re-



energizes it with fresh solution.Maximum speed for the 50-inch scrubber is 72,900 square feet per hour. **Circle No. 194 on Reader Inquiry Card**

Model 2120 most powerful

Ford New Holland calls its Model 2120 the most powerful tractor in its new seven model line of diesel tractors.



The 34.5 hp four cylinder, direct injection engine handles a wide range of agricultural, commercial and industrial jobs. A 12-speed manual transmission is standard.

Circle No. 195 on Reader Inquiry Card

Self-steering sulky makes for easy mower conversion

Exmark's self-steering sulky attaches in seconds and turns any Exmark intermediate mower into a riding mower.

Designed to keep operator controls



within easy reach, the sulky also features running board footrests, a cushioned seat and a wide wheel base.

A low center of gravity provides sta-

bility on slopes, and the steering mechanism design prevents jacknifing. Circle No. 196 on Reader Inquiry Card

3-point hitch cutter head is good for all ground types

The new 3-point hitch cutter head from Teledyne Princeton cuts through soft, hard or rocky ground without difficulty.



A specially angled cutter head cuts from 12 to 24 inches, and is ideal for renovating lawns, cutting flower beds or other landscaping projects.

Weight is 1200 pounds, and operates behind any small tractor equipped with a 3-point hitch and tractor hydraulics. Circle No. 197 on Reader Inquiry Card

Verti-Groove by Turf-Tec easy on the course

Verti-Groove, the latest aerifier from Turf-Tec, brings thin slices of soil to the surface without materially disturbing the turf.

Designed to renovate and maintain any turfgrass area, the Verti-Groove relieves soil compaction, removes thatch, layers in the soil and improves drainage. Turf-Tec says the Verti-Groove will remove soil from one to six inches deep.



The Verti-Slicer attachment cuts deeply through the turf without disturbing soil, ideal for aerifying turf on rocky ground, and $4^{1/2}$ deep root pruning promotes new roots.

Circle No. 198 on Reader Inquiry Card

TURF VAC.

sweeps both turf and pavement

The only sweepers with unique all-vacuum design that operate on both turf or pavement, wet or dry. Safe, powerful air picks up bottles, cans, as well as fine clippings to reduce thatch build-up.

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MODEL RMB. Rear Mounted Blower. Fits any Category 1 or 2 3-Pt. hitch tractor. Easy on-the-go left/right/rear discharge control. Handles almost all turf or pavement clean-up jobs.



MODEL FMB Front-mounted blower. Easy manual control of left/ right/front on-thego discharge.



CM-4 Designed to lift sand cores off golf greens and tees without disturbing grass. Sweeps 48" wide.



MODEL FM5-LD 5 cubic yard hopper lifts to dump at 96". Smooth vacuum action sweeps 60" wide.

Circle No. 128 on Reader Inquiry Card

RESEARCH UPDATE

Microbes and turfgrass pesticide efficiency

by Harry D. Niemczyk, Ph.D., OARDC

Have you ever wondered what really happens to the pesticides applied to turfgrasses? How or by what means are they eventually broken down?

Nearly all pesticide degradation proceeds by the action of microbes such as fungi, bacteria and actinomycetes. Action by these organisms leads to the pesticide's ultimate elimination from the turfgrass environment. Were it not for microbial biodegradation, residues from pesticides would simply accumulate, increasing environmental hazards.

Microbial breakdown occurs most readily in situations rich with high populations of microbes. These microbes are abundant in the upper levels of turfgrass soils and super-abundant in thatch. Pesticides applied to turfgrasses reach the aerial part of the plant first, then the thatch and finally the soil. If there is no thatch, the material that misses the plant hits the soil. The capacity of microbes to degrade pesticides that reach the thatch and/or soil helps determine the amount and duration of remaining residues to control a target pest.

Degradation rate

Normally, degradation proceeds slow enough to allow control of the pest. However, an increasing amount of scientific evidence shows that the capacity of these microbes to break down pesticide residues is, in fact, a double-edged sword.

Following repeated exposure to a pesticide, the microbes can adapt to the remaining residues by using them as an energy (carbon) or nutrient source. With abundant nutrients (the pesticide), the microbe population increases rapidly, resulting in abnormally fast pesticide disappearance. This rate is much faster than when the microbes were first exposed to the chemical. It is known as "enhanced or accelerated biodegradation."

In the field, accelerated biodegradation means a significant change from previously consistent effectiveness to ineffectiveness. However, the poor performance of a pesticide must not immediately be attributed to accelerated biodegradation. Improper rate, poor distribution, incorrect timing of application and development of resistance are but a few of the other reasons for poor performance. Nevertheless, when a distinct, consistent change in effectiveness occurs—particularly against pests such



Adam Krause, chemist at the OARDC/Ohio State University Turfgrass Pesticide Laboratory, Wooster, Ohio, extracts residues in samples from current field studies. The vertical movement and accelerated degradation of six herbicides and nine insecticides applied to turf with and without thatch is being studied.

as grubs or crabgrass—accelerated biodegradation of the pesticide is a strong candidate as the causal factor.

Not a new phenomenon

Accelerated biodegradation of pesticides by soil microbes is not a recent discovery. It was first reported for 2,4-D, 2,4,5-T and MCPA about 40 years ago. Since then, published laboratory and field studies have demonstrated this phenomenon with herbicides such as EPTC, vernolate, butylate, metolachlor and diphenamid. The same phenomenon has been shown for soil-applied carbamate insecticides, such as aldicarb, carbofuran and carbaryl, and the organophosphates diazinon, isofenphos, fensulfothion and ethoprop.

Enhanced degradation of the fungicide iprodine, currently used to control certain turfgrass diseases, was reported in 1986. In all these cases, accelerated biodegradation followed repeated application of the pesticide to the same site.

Studies conducted in 1986 and 1987 by the Ohio Agricultural Research and Development Center confirmed that after four successive years of applying Oftanol (isofenphos) to control grubs on the fairways of one golf course, residues from a fifth application dropped from 9 ppm (parts per million) on the day of application to non-detectible levels seven days after application. Laboratory tests confirmed that accelerated degradation was occurring.

Tests on thatch and soil from three other golf courses where Oftanol had been used successfully for at least two consecutive years, but gave poor results when applied a third time, tested positive for accelerated degradation of isofenphos.

Studies at Ohio State are continuing, but preliminary results indicate that microbes in the Oftanol-treated turf apparently have the capacity for accelerated degradation of some other insecticides used for grub control.

Research needed

The role of accelerated biodegradation as an important cause for the failure of previously effective soil pesticides used in agriculture is generally established in scientific literature. But research has only just begun on accelerated degradation of insecticides used on turfgrasses. To my knowledge, no investigations dealing with the herbicides or fungicides used in turfgrass management are in progress.

Considering the range of pesticides used on turfgrasses (especially golf course greens), I believe accelerated biodegradation has a strong potential for explaining at least some of the reduced efficacy of turfgrass pesticides experienced in the past. LM