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he three major areas to consider as we go into the 1990s are:

1) The way the overall makeup of the country will affect not only the buyers but also the labor force for the green industry.

2) The fact of more government regulation,

particularly from the state sector.

3) The needs of consumers and how the green industry fits into the general buying pattern.

As more people move to dwellings with smaller outside properties, companies will have to diversify to find more revenue per customer. Without doing this, almost all companies will be in extreme hardship within the next decade.

Another possible scenario will be the selling to a collective buyer rather than to a lot of homeowners. This occurs when condominiums or larger living developments use a variety of services. Green industry companies are going to have to get better at what amounts to commercial work and be prepared for a very different future in many parts of the country.

One other important fact to consider is that in many places in the U.S., those people that are able to buy green industry services have already bought them, particularly lawn care. There isn't a large group of people lurking somewhere which is just now becoming aware of lawn care and landscaping as possible services. With rare exceptions, most people in the major market areas have been able to buy lawn care and landscaping for some time now. The future seems to be more and more focused on finding customers through either acquisition of other companies or going to multiple service.

Consumers are going to demand—and get—more and better communication from the companies with which they deal. If the companies can't communicate in a variety of situations there's almost no chance of survival.

In addition, the consumers are looking for less vendors, not more. Companies that diversify will have to do so well and be certain that the mix of services that are offered are ones that make sense to the consumer, not only to the owners of the company.

Finally, there is going to be competition for the service dollar. A lot of work needs to be done to figure out exactly what the competition is. At its base, the green industry needs to understand that it is not an essential service, but that without it the environment around us will fail to be as well as taken care of.

The competition is wide open for anyone who is willing to work hard enough to be professional. Looking at where the country is going to be in its lifestyle, what the government is likely to regulate, and what the consumers are going to demands gives the professional organization a way to plan for a strong future. \Box

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The beautiful main quadrangle of Central Missouri State campus presents a favorable first impression to prospective students and their parents.

LANDSCAPE MANAGER OF THE YEAR

Training his crew members to have confidence in their ability to keep a campus beautiful and pride in their work separates this year's contest winner from others.

by Terry McIver, associate editor

ince Patterozzi, our 1990 Landscape Manager of the Year, decided to begin a career in the green industry after a drive through the Shawnee Hills region of southern Illinois.

As Patterozzi describes it, he was "captivated by the beauty" around him.

That appreciation for the great outdoors motivates Patterozzi every day as grounds manager for Central Missouri State University.

An employee of ServiceMaster, Patterozzi manages more than 1100 acres of university property, including 12 athletic fields, the Pertle Springs golf course, a 200-acre nature area, a small airport and the main campus. Said one judge, "Patterozzi's attention to detail is extraordinary given his limited budget."

Patterozzi's management skill is often admired by university President, Ed Elliot, and other university department heads impressed with the beauty of the university's campus and athletic fields.

Pat Daly, the university's physical plant manager, believes Patterozzi is a great teacher.

"His biggest challenge," says Daly, "is to educate the grounds personnel in proper grounds maintenance procedures, such as seeding, fertilizing, mowing, chemical application and irrigation installation and scheduling.

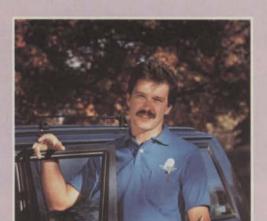
"Not only has Vince been noticed

and rewarded for his activities by having a quality program," says Daly, "but from my perspective as manager, it also sets a pace for the other people in the physical plant to make things happen."

OUNDS

Daly says all front-line workers go through an intensive training program on all maintenance procedures. Patterozzi has scheduled more than 30 days of training time for his crew in 1990. Recent topics have been "Elements of Pruning," "Athletic Field Design and Maintenance," "Irrigation Training," and "The Safe Use of Herbicides," as well as programs in leadership and communication.

"If we can't communicate with each other," he says frankly, "absolutely nothing's going to get done." "My crew likes the way our Hustlers ride. but I love the way the Turbo Shredders mow."



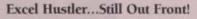
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The Central Missouri State playing field is one of 12 athletic areas kept in top condition by Vince Patterozzi and his dedicated crew.

Patterozzi's concern for his crew extends beyond the type of work they do for the university. He wants to build their confidence for challenges and opportunity that might lie ahead.

"If everyone has a belief within himself that he could someday resign and easily get a job outside the university, then I've achieved my goal."

Patterozzi has established a quarterly overseeding program for the school's athletic fields, which are seeded with bermuda and ryegrass.

"In the summer, when activity is lower," Patterozzi notes, "the bermuda fills in well. Rye is overseeded in the fall and winter."

"In the past," Patterozzi explains, "people didn't understand that the research being done at universities was important when choosing turf seed." Patterozzi now watches the national trial results each year when choosing seed. Non-irrigated sloped areas are seeded with warm-season species.

Environmentally aware

While Patterozzi agrees that the hysteria over herbicide use is overdone, he believes that there is a negative



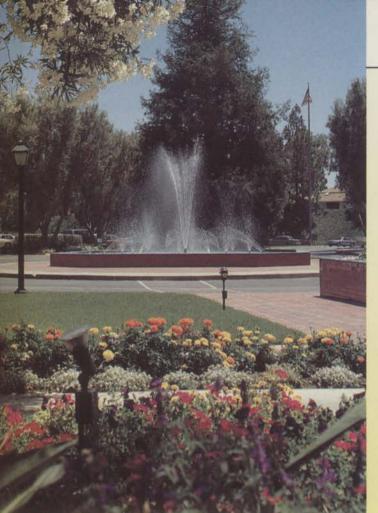
Vince Patterozzi: Fosters leadership and technical excellence among his staff at Central Missouri State University.

perception lately toward any kind of spraying around the campus. For that reason he tries to keep the turf as dense as possible, thereby reducing spraying.

Patterozzi believes the two most pressing green industry issues are a shortage of qualified and motivated workers, and the need for further use of integrated pest management. The successful grounds manager of today, Patterozzi says, must possess a high degree of technical skills in areas such as chemical control product application, irrigation system know-how, and plant and seed selection.

"It is also important that people be multi-dimensional in their jobs, so that no task becomes overburdening," says Patterozzi. "But perhaps the most important thing a person must do is to develop communication and people skills, for if we do not have workers who believe and trust, we will never accomplish our goals."

A landscape management professional for 12 years, Patterozzi completed his undergraduate and graduate studies at Southern Illinois University, largely under the tutelage of Dr. Herb Portz, who Patterozzi says remains as one of his most admired role models.



The grounds at Leisure World have been planted with drought-tolerant plant life.

Runner-up: Managing a busy world

Milt Johns, first runner-up in our annual contest, is landscape director with Professional Community Management. He manages the landscaping and lawn care for Leisure World, a retirement community of 22,000 people in Laguna Hills, Calif.

Johns manages 750 acres of turf and shrubery, used by "very active adults, who play everything from checkers to lawn bowling."

A winner of a National Landscape Irrigation award, Johns recently completed a retrofit of the communities irrigation system to accommodate drought-tolerant plant life.

The retrofit involved splitting up stations, adding valves and controllers where necessary, and replacing and moving heads to accommodate the new design.

"It was very labor-intensive and costly in terms of trenching and material needs," says Johns. "Essentially we're working with the hardware we have in the ground. We're retrofitting to a point where we minimize water waste due to misting," or other water-wasting occurences. Johns recently came up with a new method of collecting waste from job sites, resulting in a six-man staff reduction. The company now processes compost into mulch and soil amendments, while saving \$200,000 per year in trash-related fees.

Work incentives

Like contest winner Vince Patterozzi, Johns believes in the positive effect work incentives have on the workers, smart enough to take advantage incentives. This past year, he devised an incentive-based productivity improvement plan.

"As we institute new mechanization, and as we increase services we provide," Johns explains, "we are obviously increasing our workload. We're trying to get our foremen to work more efficiently without adding staff. The ones able to do that and not compromise quality are evaluated and they are compensated accordingly."

Johns spends much of his time with the residents of Leisure World, "communicating why we do what we do, why we are changing some things, or how we can save them money and increase their services."

Johns meets with three committees and three boards each month, and uses audio-visual presentations, charts, graphs and financial information.

Safety, insurance big issues

Johns thinks worker safety and rising insurance costs are two of the significant challenges facing the green industry in the 1990s.

"We equip the men with as much safety equipment that we can find, including respirators and back supports. We mandate [safety equipment] use to be in front of any legislation or litigation."

"The successful grounds manager must have thorough education in ornamental horticulture or related, 'hands-on' experience,' in all areas of the green_industry," says Johns, "as well as a 'forward-looking' attitude to move his business through the changing demands on the industry."



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TURF AND THE ENVIRONMENT

The failure to match material and demand results in unnecessary nitrogen loss. To prevent leaching, landscapers need to balance plant need with the type and amount of nitrogen to be applied.

by W. Michael Sullivan, Ph.D., University of Rhode Island

S ince the early 1970s, pesticide and fertilizer use on turf has steadily increased, thanks in part to an expanded lawn care industry. The development of the turfgrass management industry in the neighborhoods of America has created an avalanche of questions about the safety of lawn care practices.

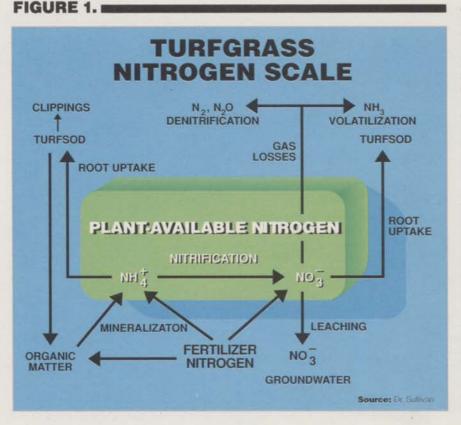
The obvious nature of the service truck in suburbia and rampant "chemophobia" creates many questions. Peoples' fears, together with a simple cause-and-effect viewpoint, have resulted in many communities and states instituting lawn care regulations and laws. While these fears are often real, in many cases they are based more on unfounded beliefs, fueled by media coverage that alleges the adverse effects of a product or application. Such titillating stories with emotional pleas cut at the heart of all peoples.

Cause for concern

The green industry and the public should see eye-to-eye on many points: • Notification is warranted where

individuals may be impacted.Clear and concise responses

should be given to many questions.



Yet the public must acknowledge that the growth of turfgrass management, with its high dependence on agrichemicals, increases the possibility of off-site losses and subsequent environmental contamination. Turf care chemicals are often applied in close proximity to cart paths, walkways, driveways and sidewalks, increasing the potential for surface runoff.

Turfgrass, especially in residential situations, is frequently established on thin, coarse and low organic matter soil material and therefore has a high leaching potential.

Nitrogen a major component

Fertilizer nitrogen is the single largest chemical used in most turfgrass management programs. Turfgrass managers need greater understanding and ability to answer questions regarding environmental contamination.

Excessive nitrate-N in water supplies can cause animal and human health problems. Nitrate-N is a drinking water contaminant with a U.S. Drinking Water Standard of 10 mg/1 (ppm). Mammals consuming water with elevated N levels can have a reduced oxygen level in their blood stream. Infants, pregnant and nursing mothers, young children and the elderly are susceptible to harm.

Nitrogen inputs to water, especially coastal bays and estruaries, have been found to accelerate eutrophication. Water quality degradation can result from N concentrations much less than the drinking water standard. Algae and water plants quickly respond to increased N with very rapid growth. This growth causes oxygen depletion which, in advanced stages, kills fish and plants resulting in strong odors and filling of the water body with decomposing materials.

Nitrogen movement

The first order of business in understanding the potential impact of N in the environment is to quickly review nitrogen movement in turf. Nitrogen readily changes form and cycles within the turfgrass. You can see the many places where N exists in Fig. 1.

The speed with which the fertilizer N transforms to nitrate N will vary with fertilizer form, soil temperature, and moisture. Quick-release materials like ammonium nitrate contain some nitrate at application but require little more than moist, warm soil and naturally