

From Tee-2-Green

Penn Pals Profile:

A portfolio of creeping bentgrasses perfect for your plans... from the world's foremost marketer

Scientific name:	Growth habit:	Shade tolerance:	Heat tolerance:	Cold tolerance:	Traffic and wear tolerance:	Seeding rate, greens:	Seeding rate, fairways:
<i>Agrostis stolonifera</i>	Spread by aggressive stolons	Fair	Good	Excellent	Very good	1 to 1 1/2 lbs. per 1000 sq. ft.	Up to 50 lbs. per acre

Penncross

For tees and greens

The standard for creeping bentgrasses since 1955 and still the most specified bentgrass for golf courses. Recovers quickly from injury and divots. Good heat and wear tolerance. First choice of golf course architects and superintendents.

A few fine courses with Penncross greens:

- PGA West Stadium Course
- The Vintage Club
- Troon North Golf Club
- Wolf Run Golf Club
- Eagle Crest Golf Course
- Kananaskis Country Golf course



Penneagle

For fairways

The top performing fairway bentgrass. Germinates quickly. Upright, dense growth habit helps crowd out poa annua. Salt tolerant.

A few courses with Penneagle fairways:

- Oakmont Country Club
- Butler National Golf Club
- Pumpkin Ridge Golf Club
- The Merit Club
- Inverness Club (Toledo)
- DesMoines Country Club



PennLinks

For new greens, green renovation and overseeding

The new standard for putting greens. Upright, dense growth for true putting. Fine texture and heat tolerant.

A few fine courses with PennLinks greens:

- Wilmington Country Club
- Inverness Club (Toledo)
- SandPines Resort
- Prairie Dunes Golf Club
- Baltimore Country Club
- Wild Wing Plantation



PennWay Blend

For fairways and winter overseeding greens

Economical fairway and winter overseeding blend of Penncross, Penneagle and 50% quality creeping bentgrass. Certified PennWay contains Penncross, PennLinks and 70% Penneagle for genetically diversity meeting certification standards.

A few courses featuring PennWay:

- Wakonda Club
- Carlton Oaks Country Club
- Riverwood Golf Club
- (winter overseeded greens)



PennTrio Blend

For tees, fairways, greens, and winter overseeding

Certified creeping bentgrass blend with 1/3 each Penncross, Penneagle and PennLinks. All the attributes of a blend with ready-to-seed convenience.

The increasingly popular blend for all around the course, from the world leader and foremost marketer of creeping bentgrasses.



For more information, call or fax: **Tee-2-Green Corp.**, 1-800-547-0255 / FAX 503-651-2351

LANDSCAPE MANAGEMENT

is a proud member of these
green industry professional
organizations:



Associated Landscape Contractors of America,
12200 Sunrise Valley Dr., Suite 150, Reston,
VA; (703) 620-6363.

American Association of Nurserymen (National
Landscape Association), 1250 I St. NW, Suite
500, Washington, DC 20005; (202) 789-2900.

Golf Course Superintendents Association of
America, 1421 Research Park Dr., Lawrence, KS
66049-3859; (913) 841-2240.

International Society of Arboriculture, P.O. Box
908, Urbana, IL 61801; (217) 328-2032.

International Turfgrass Society, Crop & Soil
Environmental Sciences, VPI-SU, Blacksburg, VA
24061-0403; (703) 231-9796.



National Arborist Association, The Meeting
Place Mall, P.O. Box 1094, Amherst, NH 03031-
1094; (603) 673-3311.

National Golf Foundation, 1150 South U.S.
Highway One, Jupiter, FL 33477; (407) 744-
6006.

Ohio Turfgrass Foundation, 2021 Coffey Rd.,
Columbus, OH 43210; (614) 292-2601.



Professional Grounds Management Society, 120
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Professional Lawn Care Association of America,
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Responsible Industry for a Sound Environment,
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Sports Turf Managers Association, 401 N.
Michigan Ave., Chicago, IL 60611-4267; (312)
644-6610.

Turf and Ornamental Communicators Associa-
tion, 421 West Travelers Trail, Burnsville, MN
55337; (612) 894-2414.

AS WE SEE IT

JERRY ROCHE, EDITOR-IN-CHIEF



The Great Swami speaks...

It's January, a time of renewed hope and optimism for golf and landscape professionals, and a time when the Great Swami of Strongsville briefly emerges from his long winter hibernation to make his long-awaited prognostications for the coming year.

Opening a recent conversation in a lighter vein, the Great Swam predicts that Chicago Cubs fans will have to wait another year for a National League pennant (though it's probably not so light a vein to Cubbie fans), and all of those Redskin fans in Congress will have to wait at least another year for a winner, too.

So much for The Swam's rock-solid predictions. Here are some others:

- If the Federal Reserve Board doesn't monkey around with interest rates too much this year, Swam says, lawn care companies and landscape contractors will break all sales records.

The Swami sees construction burgeoning from coast to coast in 1995. "But it won't last forever," he hastens to add.

- The USGA will outlaw use of the reviled stimp meter on golf course greens before the end of the year.

The Swami, an inveterate golfer, doesn't enjoy fast greens, and he doesn't know anybody who does, especially when \$75,000 isn't riding on every putt. Greens that stimp at 300 or 400 take all the fun out of the game, he says, and the USGA will finally recognize this.

- At least one National Football League team and at least two major universities with respected football programs will renovate their stadiums, replacing synthetic turf with natural surfaces.

The players don't like plastic grass, the coaches don't like it—even the fans don't like it anymore, administrators will reason, the Swam believes. So why use it?

- Continuing a recent trend, public outcry for more annuals, flowering shrubs and ornamental grasses will leave the nation's nurseries bereft of material for the first time in history.

Landscape managers, golf course superintendents and park managers will react to public demand by purchasing and installing more colorful plant material than ever—if they're smart, the Swami says.

- Mother Nature will play havoc with weather in all parts of the country. The Northeast and Upper Midwest will be snowed under much of the winter; spring tornadoes will pepper the Midwest; at least one major earthquake will hit the West Coast; the Pacific Northwest will be wet; and at least one major hurricane will riddle coastal areas of the Southeast. (The Great Swam really went out on a limb with those predictions, didn't he?)

- LANDSCAPE MANAGEMENT magazine will continue to be the best value in the green industry, the Swami says. He's been a big LM fan for many years now, and continues to read it from cover to cover each month. He says he likes it even better than his subscriptions to *Playthings* and *News of the Occult*, partly because it's free, but mostly because it's got so many great articles.

Swami tells us that even a drastic increase in second-class postage rates and the cost of paper won't affect the magazine's superior performance in 1995. (Thanks, Swami...we needed that.)

Now, before turning the page, please, dear readers, accept our wishes for a bright, prosperous and profitable 1995. "Hang tough," the Swam says, packing his turban away for another year. "It's gonna be a great one."

LANDSCAPE MANAGEMENT

'WE KNOW YOUR TURF'

JANUARY 1995 VOL. 34, NO. 1

COVER FEATURE

8 Landscaping grows 12.7%

Diversification seems to be a key, but the economy picked up sufficiently before the onset of summer to ensure success last year.

Jerry Roche

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A pick-up truck is often not complete until you add a trailer or other transport accessory.

Terry McIver

16 Hiring on personality

Before you start hiring new people, the first thing you have to do is to define your own personality.

Charles Vander Kooi

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To ensure minimal downtime repairs, maintenance checks are particularly important in the hot weather and during the peak season.

Tom Kane

24 Treating oak leaf spot 34 Article index, 1994

GOLF & ATHLETIC TURF

1G It's fine fescue

Fine fescues adapt to virtually any cool-season golf course setting and provide a 'traditional' look.

Larry Kassell



4G New bentgrasses

You can expect new varieties of bentgrasses offering better disease resistance, say breeders.

Ron Hall

8G Renaissance man

Pondering the future, 16-year veteran superintendent Jim Nicol sees electric mowing, improved turf cultivars and money cartels meeting head-on.

Jerry Roche

12G Past and present

Colliers Reserve, an Audubon Signature Course, achieves a balance between a man's playground and an animal's refuge.

Terry McIver

13G Planning for guests

At the Greenbrier resort, Bob Mitchell says guests don't want to look at course construction.

Jim Guyette

20G Forcing grass to grow

That's what's going on at Soldier Field and the Bears' practice fields over the course of 12 months—even today when the team is long gone from the playoffs.

Ken Mrock

TECH CENTER

26 Controlling fire ants

The cost of controlling this pest can be decreased by using a program similar to the one at the Colonnade in Birmingham, Ala.

Bill Cobb & Dr. Pat Cobb

32 Selecting grasses

Climate is still a big turfgrass survival factor, but research has expanded the areas of adaptability for some species. Here are some of the most popular varieties of turfgrass.

Terry McIver



HOT TOPICS

44 Bio pesticides grow

The market for biological pesticides in the U.S. is scheduled to hit \$150 million by 1997, according to a study conducted by the Freedonia Group, Cleveland. That's a growth of 4.5% per year.

45 Interest in IPM, too

Seventy-seven percent of respondents to a National Arborist Association Mini-Survey said they follow Plant Health Care or Integrated Pest Management techniques. Such programs have been available to customers for an average of 6.8 years.

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ON THE COVER: *The Price Residence won the Ben Slade Award from the California Landscape Contractors Association for overall maintenance. Maintained by Mike's Landscape & Maintenance, Torrance. Photo courtesy of CLCA.*

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LANDSCAPE MANAGEMENT (ISSN 0894-1254) is published monthly by Advanstar Communications, Inc. Corporate and editorial offices: 7500 Old Oak Blvd., Cleveland, OH 44130. Advertising, accounting, advertising production and circulation offices: 131 West First St., Duluth, MN 55802; 1333 N.W. Norcross, Seattle, WA 98177.

Subscription rates: one year, \$39, two years \$58 in the U.S.; one year \$66, two years \$99 in Canada. All other countries: one year \$130, two years \$195. Current issue single copies (pre-paid only): \$4 in the U.S.; \$7 in Canada; \$12 elsewhere; add \$3.50 per order for shipping and handling. Back issues, if available, \$10; add \$3.50 per order for shipping and handling (pre-paid orders only).

Office of publication: Advanstar Communications, Inc., 131 W. First St., Duluth, MN 55802. Second class postage paid at Duluth, Minnesota 55806 and additional mailing offices.

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POSTMASTER: Send address changes to *Landscape Management*, P.O. Box 6198, Duluth, MN 55806.



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IMPORTANT: Please remember

always to read and follow carefully all label directions when applying any chemical.

ASK THE EXPERT

DR. BALAKRISHNA RAO



Information on the green industry

Problem: I am in the process of opening a lawn and landscape management company. I plan to offer irrigation installation and repair and herbicide and fertilizer applications, but am a novice in that part of the field. Do you know where I can find any literature on these subjects or any courses I could take at home? (Florida)

Solution: Regarding the pertinent literature and/or courses in your field, contact the University of Florida in Gainesville or other universities in your area. Your local county cooperative extension service can give you a listing of local schools that offer courses in agricultural sciences. You may be interested in a four-year degree or a two-year associates degree in turfgrass and ornamental management areas.

Once you obtain enough background and confidence, the technical part of your business will be easier. These schools should provide you with the basic knowledge of programs related to your interest.

Developing a service on a program basis will require some scientific background and technical expertise. Therefore, if you are unable to obtain it through schooling, consider the following alternatives:

- 1) Work for another company as an intern or employee.
- 2) Hire a technical expert (advisor) knowledgeable about program development.
- 3) Hire a private technical consultant/contractor.

In addition to the technical aspect of the programs, you also need expertise in equipment, business management, and so on. Contact the appropriate experts to help you in this regard.

You also need to become familiar with federal and state laws pertaining to your interests. A pesticide applicator/operator license may be required in order to purchase and apply pesticides. This information may be obtained through your local Department of Agriculture and/or EPA office.

Attend seminars and/or conferences related to your interest in services. Also, become a member of local, state or national organizations such as Professional Lawn Care Association of America or International Society of Arboriculture. Subscribe to trade magazines, such as *LANDSCAPE MANAGEMENT*, *Arbor Age*, and/or *Tree Care Industry* and cooperative extension publications and/or newsletters.

(ED. NOTE: See Page 1 for a list of some of the best trade organizations in the green industry. Additionally, the PLCAA has a home study course in turf management it conducts in cooperation with the University of Georgia. To find out more about this course, call the PLCAA at (404) 977-5222.)

Will horticultural oil harm flowers?

Problem: Will horticultural oil harm annuals or perennials growing beneath trees? Normally, we would have used oil before these annual flowering plants are planted. We are thinking of using oil at other times during the growing season when flower-

ing plants will be in bloom. (New York)

Solution: Based on the information that I have, and in checking with other researchers, I found no evidence of any phytotoxicity concern with horticultural oil on annual flowers (when applied according to label specifications).

According to University of California publication "Managing Insects and Mites with Spray Oils," narrow-range oils (Sunspray 6E) can be used in greenhouses on bedding plants, vegetable transplants and house plants such as azaleas, begonias, camellias, chrysanthemums, crown of thorn, dieffenbachia, ferns (excluding maidenhair fern), gardenias, geraniums, jade plant, most palms, philodendrons, poinsettias, portulacas, and on house plants (excluding ficus plants). Ficus plants show water-soaked spots from 1 percent oil application and necrosis from 2 percent oil application.

However, reports do suggest that under certain adverse environmental conditions, such as high temperature, high humidity and/or low soil moisture, some plants may be sensitive to pesticides in general. Other studies suggest that oils should not be applied to geraniums and mums in bloom, or to poinsettias during the bract expansion stage. Applications should be avoided when relative humidity remains above 90 percent for more than 48 hours or temperatures are above 90° F. Most of this information is from greenhouse and/or indoor plant set-up where relative humidity could be high.

Information on the effect of oils on understory plants, such as annuals in landscapes, is lacking.

Sometimes the problem may be related to not recirculating the hot mix from the hose into the tank prior to treating. On a very warm day, mixture in the hose can get very hot when the sprayer is not being used. In this case, the best thing to do is to recirculate the mix before treating.

Another way to minimize the spray drift/drip on non-target plants is to use proper applications, disc size and technique. Generally it is sufficient to wet the foliage instead of the past practice of spray to the point of drip.

Field experience has demonstrated that spraying the flowers with water after the application minimizes the potential for injury.

If you are thinking of using horticultural oil throughout the growing season for the first time, it is better to try it in a small area and learn more about the safe handling and potential phytotoxicity of the product before using it on a wide scale.

Read and follow label specifications for better results.

Dr. Balakrishna Rao is Manager of Research and Technical Development for the Davey Tree Co., Kent, Ohio.

Mail questions to "Ask the Expert," LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, OH 44130. Please allow two to three months for an answer to appear in the magazine.

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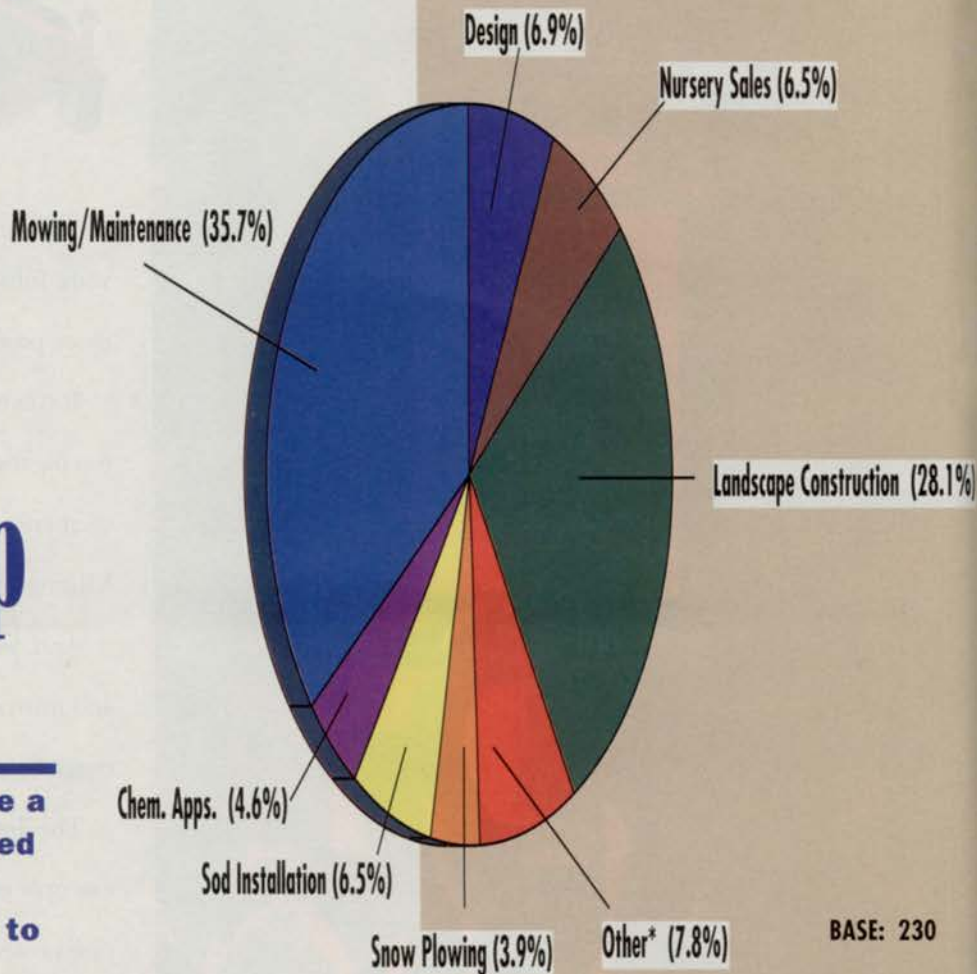
landscaping
industry
grows
at 12.7%
annual clip

Diversification seems to be a key, but the economy picked up sufficiently before the onset of summer last year to ensure success.

■ The landscape industry grew at an excellent clip in 1994, and appears to show no signs of slowing down, according to *LANDSCAPE MANAGEMENT*'s first "State of the Landscaping Industry".

Landscapers across the U.S. said they grew an average of 12.7 percent from 1993 to 1994, and predict they will grow an additional 13.6 percent in 1995. Interestingly enough, even the big companies—those with revenues of \$1

REVENUES DERIVED FROM SERVICES PERFORMED



*OTHER REVENUES

irrigation 1.4%
aeration 1.4%
dethatching/renovation 1.3%
interior plant maintenance 0.7%
erosion control 0.6%
unspecified 0.9%

million or more—reported an average growth of 12.5 percent.

Total receipts of LM's 16,566 landscape readers in 1994 were \$8.0 billion, according to the survey: \$4.05 billion in design/build accounts and \$3.95 billion in mowing/maintenance accounts.

Survey questionnaires (994) were mailed in November to LM subscribers. A total of 233 were returned, for a response rate of 23.4 percent.

Of the 191 companies claiming to have grown in 1994, 158 said at least part of the increase came from adding new customers. But almost one company in five added services in 1994, the most popular among them:

- walks, decks and patio construction;
- irrigation installation and repair;
- snow plowing;
- retaining wall construction;
- mulch supply and installation;
- aeration; and
- tree fertilization and pruning.

Diversification appears to be the key, then, to maintaining a successful landscape business. The average company gets 35.7 percent of its receipts from mowing/maintenance, 28.1 percent from construction, 6.9 percent from design. But it also depends heavily on other functions—sod installation, nursery sales and chemical applications—for more than 20% of its receipts. A small percentage of the receipts come from such diverse tasks as renovation, interior plant maintenance, golf course maintenance and erosion control.

Other ways landscapers are diversifying: flower installation and maintenance, hydroseeding, pressure washing, consulting, shrub care, excavation, integrated pest management (IPM), overseeding, trash removal, parking lot cleaning.

Finding good employees
continued on page 12

PURCHASING POWER OF LM'S LANDSCAPE READERS

PRODUCT CATEGORY	% OF SAMPLE	MEDIAN DOLLARS	MEAN DOLLARS	PROJECTED TO CIRC.
Soil aerators	22%	\$1,550	\$2,080	\$7,580,500
Fert./herb. combos	59.7%	\$3,000	\$18,770	\$185,633,500
Domestic pick-ups	53.9%	\$16,000	\$22,000	\$196,439,500
Dry-app. fertilizer	71.2%	\$2,000	\$8,830	\$104,150,000
Ornamental fert.	56.5%	\$950	\$3,700	\$34,631,000
Liquid-app. fertilizer	13.6%	\$1,750	\$6,070	\$13,675,500
Post-emerg. herbicides	63.4%	\$1,000	\$2,340	\$20,700,000
Pre-emerg. herbicides	50.3%	\$900	\$4,060	\$33,830,500
Small mowers	42.4%	\$2,000	\$4,040	\$28,377,000
Mid-size mowers	30.9%	\$5,000	\$10,400	\$53,236,500
Large mowers	18.8%	\$12,700	\$26,620	\$82,905,500
Turfgrass sod	64.9%	\$15,250	\$14,900	\$160,195,000
Irrigation/sprinklers	42.9%	\$9,000	\$18,000	\$127,922,500
Compact tractors	25.7%	\$15,000	\$22,010	\$93,706,500
Turf fungicides	31.9%	\$500	\$2,180	\$11,520,500
Turf insecticides	37.7%	\$1,000	\$4,290	\$26,792,500
Turf-seed	75.9%	\$1,000	\$5,240	\$65,885,500
TOTAL		\$88,600	\$175,520	\$1.25 BILLION

The logo for ESN (Exxon Smart Nitrogen) features the letters 'ESN' in a large, bold, green, 3D-style font. The letters are set against a blue background that is decorated with several blue spheres of varying sizes, arranged in a pattern that suggests a molecular or scientific theme. A small 'TM' trademark symbol is located at the bottom right of the 'N'.

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