

A Perfect Plug for PennLinks



DJ Pakkala, Supt.
The Vintage Club
Indian Wells, CA

"PennLinks survives 126° heat and below freezing temperatures here in the desert"

"Here at The Vintage Club, we pride ourselves on our 36 flawless PennCross greens, so when Dr. Joe Duich at Penn State University asked me to test his experimental bentgrass PSU 126, now PennLinks, I jumped at the chance. After three years of extreme desert temperatures, this chipping green looks absolutely perfect, and I get raves from the membership.

I have found that PennLinks has a more upright growth habit and more

uniform color than PennCross and that fast, true putts are the standard.

While I'm not given to praising products loosely, here I am plugging PennLinks ... and what better place than on our perfect pitching green!"

PennLinks PVP 8700030



Warren Bidwell is available to speak to your superintendents' group about the Penn bentgrasses. Call our toll free number for details.
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Spray herbicide directly over the top of your established shrubs and ornamentals? Go ahead. Surflan® lets you spray with complete confidence.

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**Take your weed control
where you never thought possible.**

EXTRA!

VOL. CXXXVI

The Daily Sun

GREENSBORO, WEDNESDAY, NOVEMBER 1, 1987

NEW INSECTICIDE STOPS GRUBS IN 3 DAYS!

**“Lawn care experts
get 90%
control in 3 days!”**

by THOMAS BAGOT

Recent label approval by the Environmental Protection Agency marks the introduction of the ultimate product for grub control in home lawns.

New Triumph offers lawn care professionals many advantages in grub control.

Because it's fast acting it controls grubs in 2 to 3 days.

Triumph's superior chemistry provides/delivers over 90 percent grub control quickly and maintains that performance over 10 weeks.

New Triumph also controls surface insects and mole crickets and is labeled exclusively for use by lawn care professionals.

And new Triumph's liquid formulation and low rates mean

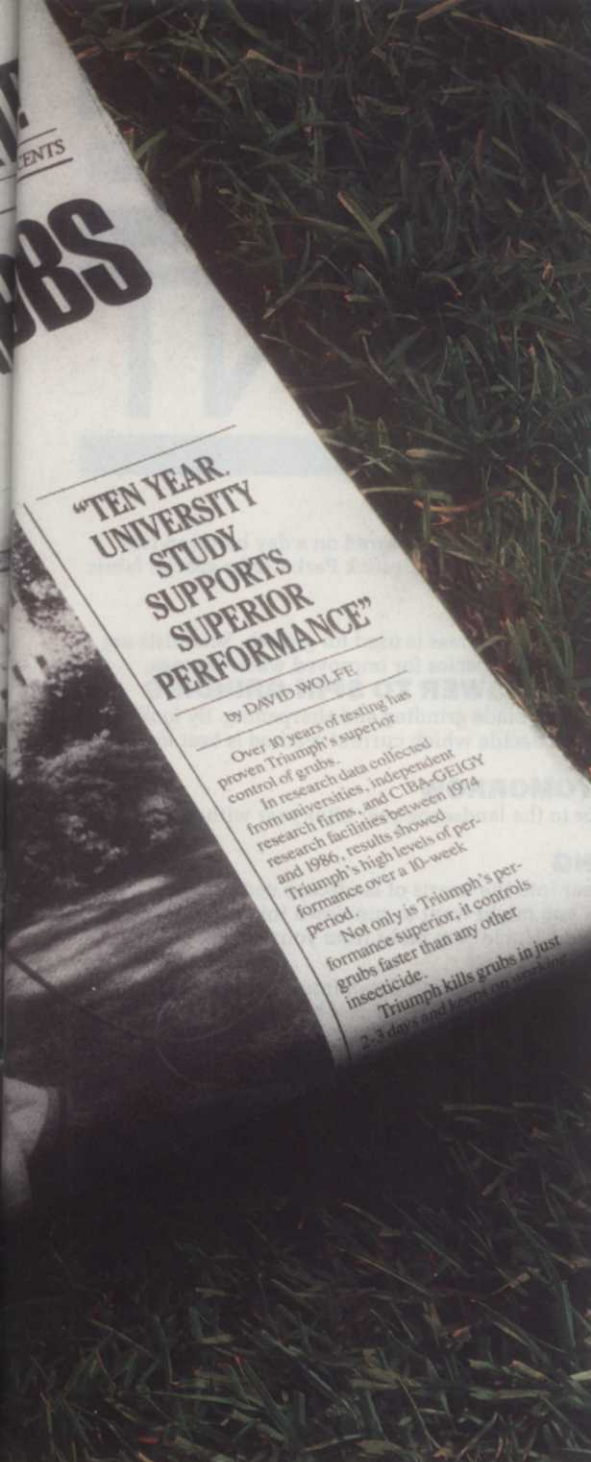
The fast acting control of Triumph stops root damage from grubs in a hurry so your homeowner customers can relax and feel confident that the grub problem is gone.

One application of Triumph per year in the fall is all you need to control grubs consistently and effectively. Years of testing shows that Triumph continues to control grubs for over two months. This should prevent retreatment until the following season.

Triumph goes to work faster than other products you've used. Within two days of application, you see Triumph control grubs and other insects. That means you stop grub damage quickly, reducing complaints and keeping your



THE BEST NEWS TO



New Triumph®, from CIBA-GEIGY, provides, on average, over 90% grub control in just two to three days. And there are over 10 years of major university and CIBA-GEIGY trials to prove it.

Triumph offers broad spectrum control of surface feeders like chinch bugs, sod webworms, army worms, chionodes, plus sub-surface mole crickets and annual bluegrass weevils.

Application in late summer to fall can prevent turf insect damage by eliminating grubs when they're small, before they can damage roots. And if grub damage appears in spring and summer, application of Triumph quickly stops further damage.

When your customers call you with a grub problem, they want results fast. And that's what they get with Triumph. And, because Triumph is restricted to lawn care applicators, your customers can only get it from you.

CIBA-GEIGY

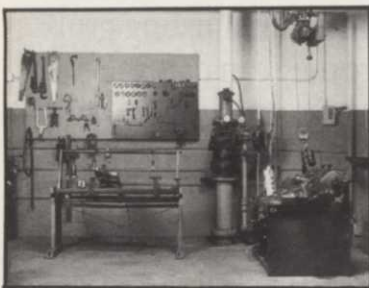


PRODUCING TRIUMPH. HIT LAWNS IN YEARS.

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LANDSCAPE MANAGEMENT

Formerly WEEDS TREES & TURF



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When the Pope visited San Francisco last fall, he appeared on a day between two baseball games. The athletic field managers at Candlestick Park used a special fabric to save the turf.

30 TURFGRASS WATER USE

Only one percent of the water applied to turfgrass is used for growth. Scientists are studying 'water use rate' of some turfgrass species for improved water savings.

34 COVER STORY: THE REEL ANSWER TO SPIN-GRINDING

Herein lies the evolution of reel mower blade grinding and sharpening. By looking back, golf course superintendents can decide which current method is best for them.

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A perennial garden will bring color to the landscape year after year without the headaches of re-planting.

50 DEADLINE TAX PLANNING

April 15th. The date that strikes fear into the hearts of landscape contractors everywhere. As it fast approaches, you might want to run down this list of hints that can help reduce the amount of money Uncle Sam picks from your pocket.

58 THATCH MANAGEMENT

A deep build-up of thatch above the soil surface can mean trouble to turfgrass managers. One of the nation's foremost experts tells readers how to get rid of it.

64 CORPORATE STRUCTURE

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During the last decade, the Sports Turf Research Institute in England studied what makes a good field.

76 A DIFFERENT ACCENT

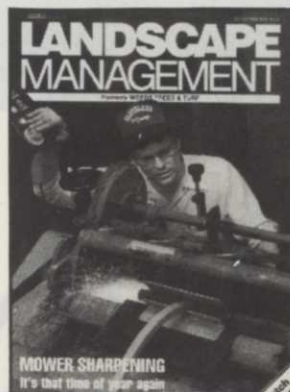
Use of ornamental grasses is spreading at a healthy rate across the U.S. Perhaps because they are close to being the 'perfect ornamental.'

84 SULFUR IN TURF MANAGEMENT

Use of sulfur is increasing, and not just on golf courses. Dr. Nick Christians examines this valuable fertilizer.

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On the cover: Steve Green of North Coast Distributing in Cleveland, Ohio sharpens a reel.

LANDSCAPE MANAGEMENT (ISSN 0894-1254) is published monthly by Edgell Communications, Inc. Corporate and Editorial offices: 7500 Old Oak Boulevard, Cleveland, Ohio 44130. Advertising Offices: 7500 Old Oak Boulevard, Cleveland, Ohio 44130, 111 East Wacker Drive, Chicago, Illinois 60601 and 3091 Maple Drive, Atlanta, Georgia 30305. Accounting, Advertising Production and Circulation offices: 1 East First Street, Duluth, Minnesota 55802. Subscription rates: \$25 per year in the United States; \$35 per year in Canada. All other countries: \$70 per year. Single copies (pre-paid only): \$2.50 in the U.S.; \$4.50 in Canada; elsewhere \$8.00; add \$3.00 for shipping and handling per order. Second class postage paid at Duluth, Minnesota 55806 and additional mailing offices. Copyright© 1988 by Edgell Communications, Inc. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher.

POSTMASTER: Send address changes to LANDSCAPE MANAGEMENT, P.O. Box 6198, Duluth, Minnesota 55806.

MOWING SLOPES DOESN'T HAVE TO BE AN UPHILL BATTLE.

The Jacobsen Tri-King 1471 is king of the hill with exclusive 3-wheel drive.

No other triplex mower flattens hills like the Jacobsen Tri-King 1471. No-slip direct-drive traction pump and optional 3-wheel drive take you to the top while other mowers are spinning their wheels. And with automotive-type drum brakes, no one lets you hold your ground better.

With the Tri-King 1471 you get both high performance and the legendary Jacobsen quality cut. Pick either 5- or 10-blade reels to match your mowing needs. Use them in fixed position for higher cutting, or floating position to hug contours and eliminate scalping. Time-saving on-machine backlapping is another Jacobsen advantage.

Operators will like the foot-controlled hydraulic lift with automatic reel shutoff; and positive aircraft-yoke-type steering. Together, they deliver the fastest, most convenient lift, turn and mow capacity of

any triplex. Plus, rubber-cushioned isolation mounting of the engine reduces vibration and noise for better operator comfort.

The Tri-King 1471 is also tops in serviceability. Interchangeable reel drive belts make replacement easy without tools. Ducted air flow keeps the engine clean and cool. And the efficient drive system design eliminates constant adjustment and replacement of drive belts.

Stay on top of your mowing schedule with a Jacobsen Tri-King 1471. See your Jacobsen distributor today. Attractive lease and financing plans available. Jacobsen Division of Textron Inc., Racine, WI 53403.

JACOBSEN
TEXTRON

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J-7-8



Horticulture enrollments stabilizing?

■ The December, 1987, issue of *LANDSCAPE MANAGEMENT* reported that, though enrollment in horticulture and agronomy is generally down, some schools have been showing plateaus or slight increases. News from the University of Maryland backs this up.

Undergraduate enrollment in specialized horticulture remained steady despite decreases in other ag disciplines at Maryland, says the horticulture department's annual report.

Bruno Quebedeaux, Ph.D., credits a landscape design option for its strength. Since 1984, enrollment has risen from 87 to 89. The reason, Quebedeaux says, is a growing landscape industry in Maryland, where urbanization is supporting both public and private construction—especially in Baltimore and Washington, D.C.

Manufacturer expects equipment sales to dip

■ Officials at JI Case, manufacturer and marketer of light- and medium-sized equipment, are predicting a flat year for equipment sales in 1988.

According to John Gleason, senior vice president for North American sales and marketing, domestic economic conditions, heavy foreign competition and stock market uncertainties could cause a modest decline in sales this year.

He adds that the decline won't come close to matching the recession of 1980 to 1982, from which equipment manufacturers took the last five years to recover.

Green industry is one of promise

■ "The challenge which the turf industry is facing is as important as that of the agriculture industry."

With those words, Virginia Commissioner of Agriculture S. Mason Carbaugh kicked off this year's Virginia Turfgrass Conference on a positive, but guarded, note. "The green industry will continue to flourish, but you must learn how to use your knowledge to best inform the public. You know the questions that have to be asked.

"It is your challenge to let the uninformed and ignorant know that the green industry can be safe to the environment and do its job on turf," Carbaugh continued. "There's only one environment, and we must learn how to coexist in it."

Carbaugh concluded his keynote speech in an upbeat fashion:

"At a time in our history when our ingenuity has helped create different substitutions in business and industry, there is still no substitute for the green industry. It is an industry of promise. It is an industry of alert, honest, risk-takers."

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Dollar spotless.

Dollar for dollar, nothing controls dollar spot better than Rubigan.®



PESTICIDES

Herbicide failure? It's probably *your* fault

PRE-EMERGENTS

The most common reason why pre-emergence herbicides for grassy weeds fail is that they are applied too late in the growing season. Doug Davis, a research assistant at the University of Maryland, notes that few, if any, pre-emergence herbicides will knock out weeds after their germination. Also, not watering in chemicals within 72 hours of application can keep the herbicide from the germinating seed.

Light and microbial action also will break down the active ingredient, Davis told landscape managers at Turfgrass '88 in Baltimore. Often, a necessary second application is not made, especially with Balan, Dacthal and Team, he adds.

Weather conditions also affect success. A dry spring followed by a moist June and July will delay germination past the pre-emergent's efficacy period. Improper calibration and a disruption of the soil surface, such as from divots, also can work against control.

Davis, therefore, recommends taking these steps toward successful pre-emergence control:

- Apply at recommended rates. This includes proper calibration and measuring of chemical. He suggests applying granular at half rates in two



directions.

- Apply about one to two weeks prior to weed seed germination. In the north, he says, this is generally between May 1 and May 20; in the transition zone March 15 to April 15.

- Water in; do not disturb surface.

- Finally, Davis recommends re-application about six to eight weeks following initial application.

POST-EMERGENTS

Any number of outside influences can decrease the effectiveness of post-emergence broadleaf herbicides, says Tony Koski, Ph.D. at Ohio State.

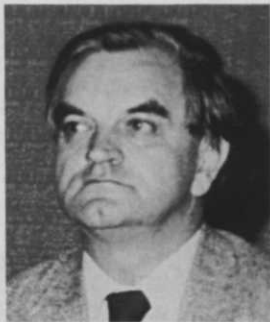
First, is the weed susceptible or tolerant to the herbicide? Key influences on this, Koski says, are:

- herbicide placement;
- herbicide dosage or proper application rate;
- herbicide formulation (either granular or liquid);
- growth stage of the plant (the younger the better);
- degree of absorption and translocation and metabolism of the chemical by the plant;
- pesticide interaction in tank mixing;
- synergistic effects of tank mixing; are combinations better?; and
- enhancement: should an additive such as a wetting agent be mixed in to induce a response?

With tank mixing, antagonism is a possibility, Koski notes. Mixing sometimes reduces efficacy, as in the case of Acclaim! in combination with phenoxys. Physical incompatibilities can result in a chemical settling out of the mix. Chemical incompatibility can reduce efficacy or even form new chemicals. Poor water quality will also affect chemical potential.

The amount of herbicide absorbed also is related to the weather. Hot dry conditions thicken cuticles and close stomata, openings through which herbicides are absorbed. Often, irrigating turf can help if weeds are growing actively. In general, Koski says, moist conditions of spring and fall are best for application timing. Rain and runoff, however, will decrease efficacy.

Koski made these observations at the Ohio Turfgrass Conference.



Jackson



Smiley



Couch

DISEASES

Cause of summer patch finally identified

Researchers at Rhode Island University have identified the causal agent of summer patch disease in Kentucky bluegrass turf.

Previously identified as *Phialophora graminicola* by Richard Smiley, Ph.D., the pathogen is now known to be a species of *Magnaporthe*. *P. graminicola* is a common inhabitant of Kentucky bluegrass

roots, but it is not an aggressive pathogen.

Research on this topic was headed by Noel Jackson, Ph.D., and Peter Landschoot. Smiley, now working at the Columbia Basin Agricultural Research Center in Pendleton, Ore., agrees with Jackson and Landschoot. "It's a remarkable piece of work," says Smiley. "It's a further clarification. I

had identified the existence of a fungus."

This is the latest in a series of theories expounded in the last 20 years on the causes of a group of turf diseases known as fusarium blight (or fusarium blight syndrome). Turf pathologists have long debated the causal agents of the diseases. The de

continued on page 18