



“In the bigger picture, isn't what we do really just making sure that one more piece of a customer's American Dream is picture perfect?”

“And thanks to Lebanon quality, we do it quite well.”



John Nugent, Lawn Medic, Inc., Bergen, NY

There's more to a beautiful lawn than meets the eye. It's the part of a homeowner's American Dream that depends on you—and the products you select.

Lebanon Pro fertilizer products are formulated for quick green-up. Uniformly sized for even distribution. Clean and easy to spread.

Plus Lebanon quality delivers one of the most efficient cost-per-thousand figures in the industry. And *that's* a pretty picture—for everyone.

For more information on our complete line of Professional Turf Products, call our Greenline at 1-800-233-0628 or 717-273-1685.



Lebanon
TOTAL TURF CARE
A division of Lebanon Chemical Corporation
P.O. Box 180 • Lebanon, PA 17042



Keep your reputation
spotless.

Golfers may not know leaf spot by name, but it can mark the difference between your course and someone else's.

DYRENE® 4 Turf Fungicide has been effectively controlling leaf spot for years. And for every day of control you get, nothing costs less.

DYRENE 4. Proven control. Because we have a reputation to consider, too. Specialty Products Group, Box 4913, Kansas City, MO 64120.

Dyrene 4

Mobay Corporation
A Bayer USA INC. COMPANY



DYRENE is a reg. TM of Mobay Corporation.

POCKET GUIDE TO



TURF FERTILIZATION	8
WEED CONTROL	
PRE-EMERGENCE (COOL-SEASON)	16
PRE-EMERGENCE (WARM-SEASON)	20
POST-EMERGENCE (COOL-SEASON)	24
POST-EMERGENCE (WARM-SEASON)	28
INSECT CONTROL	
WARM-SEASON	30
COOL-SEASON	32
DISEASE CONTROL	
WARM-SEASON	34
COOL-SEASON	38

Compiled by the editors of Landscape Management from articles appearing in the magazine by leading agronomists from across the country.

Look at it this way.

Is there really any other choice in grub control?

CHIPCO® SEVIN® brand SL carbaryl insecticide consistently demonstrates effective control of the most damaging species of white grubs. Plus control of 29 other destructive turf pests—including sod webworms, chinch bugs and bluegrass billbugs. It even provides dependable control of more than 86 insects known to attack trees, shrubs and ornamentals.

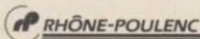
And CHIPCO® SEVIN® brand SL carbaryl insecticide gives you all this control at a cost of only about one dollar per 1,000 sq. ft. But the advantages don't stop there. CHIPCO® SEVIN® brand SL carbaryl insecticide is ideal for control of nuisance pests such

as ants, fleas, ticks and mosquitoes that thrive around the perimeters of your course. And it's easy to apply. There's no need for special protective clothing, no odor, and play can be resumed as soon as the spray has dried. CHIPCO® SEVIN® brand SL carbaryl insecticide is low in toxicity to fish, and other formulations of SEVIN® brand are used for control of pests on household pets, poultry and some game birds. When you add it all up, is there really any other choice in grub control?



Chipco Sevin SL

Brand Carbaryl Insecticide



EXTRA!

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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



INTRODUCING THE BEST NEWS TO H

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.

"TEN YEAR
UNIVERSITY
STUDY
SUPPORTS
SUPERIOR
PERFORMANCE"

by DAVID WOLFE

Over 10 years of testing has proven Triumph's superior control of grubs.

In research facilities, independent from universities, independent from universities, and CIBA-GEIGY research facilities between 1974 and 1986, results showed Triumph's high levels of performance over a 10-week period.

Not only is Triumph's performance superior, it controls grubs faster than any other insecticide.

Triumph kills grubs in just

TURF FERTILIZATION

John R. Street, Ph.D., Ohio State University

Essential Plant Nutrients Required for Turfgrass Growth and Development

Macronutrients	Typical Percentage in Turfgrass Tissue ^a	Remarks
Nitrogen Phosphorus Potassium	3-6 0.2-0.5 2-3	Commonly used in maintenance fertilization at ratios of 3-1-2 to 5-1-2. Additional P and K (corrective) may be necessary where inherent soil levels are low.
Sulfur	0.2-0.3	Usually only applied where a specific deficiency has been diagnosed. Used in ratios similar to P.
Calcium Magnesium	0.4-0.6 0.2-0.4	Usually only applied where a soil pH adjustment is required or on alkali soils.
Micronutrients	Typical Parts per million (ppm) in Turfgrass Tissue	Remarks
Iron Zinc Molybdenum Manganese Copper Boron Chlorine	40-200 40-120 0.1-0.2 20-150 15-20 5-20 —	Iron is usually used to provide short term green color enhancement. Micronutrients primarily deficient on alkaline soils and/or soils with high phosphorus and/or high micronutrient levels (Mn, Zn, and Cu). Seldom deficient on fine-textured soils.

^a Elemental percentages will vary to some extent depending on turfgrass species and cultivars, environmental conditions and other variables.

A Comparison of Known Late-Season Fertilization Advantages on Cool- Versus Warm-Season Grasses

Late-Season Effect	Cool-Season Grass Response	Warm-Season Grass Response
Winter hardiness	+ -	-
Rooting	+	
Carbohydrate balance	+	
Fall color retention	+	+
Spring greenup	+	+
Spring mowing reduction	+	+
Turf density	+	+
Weed reduction	+	
Disease reduction	+	
Thatch accumulation	+	

Plus (+) denotes a positive response, negative (-) denotes a negative response, (+ -) denotes a limited response and a blank indicates research information limited.

Nitrogen Treatment Effects on a Merion Kentucky Bluegrass Sod

Nitrogen Rate	Annual Clipping Yield (dry wt.)	Nitrogen Content in Clippings	Sod Strength	Rhizomes
lb/A/month	lb/A	%	lb to tear	grams
0	463	3.0	146	99
15	1807	3.3	188	89
30	2555	3.6	130	120
60	5676	4.5	97	43
120	8447	5.4	67	14

Rieke, P. E. 1975. Turfgrass Fertilization - Nitrogen. 16th Illinois Turfgrass Conference Proceedings. 81-85.

Comparative Turfgrass Responses of Commonly Used Maintenance Nutrients-Nitrogen, Phosphorus and Potassium

Turfgrass Response	Nutrient		
	Nitrogen	Phosphorus	Potassium
Shoot Growth	•		
Shoot Density	•		
Grass Color (Green)	•		
Root Growth	•	•	•
Establishment Rate	•	•	
Recuperative Rate	•		
Wear Tolerance	•		
Heat Stress	•		•
Drought Stress	•		•
Cold Stress	•		•
Disease Incidence	•		•

• Fairly strong relationship based on available research.