CONTROLLED RELEASE NITROGEN **Now A Force Across America!** HOLWIN FERTILIZERS, LTD. AGRI-TURF, INC. Hatfield, Massachusetts WOLFKILL issauga, Ontario **VOGELS SPRING** FEED & FERTILIZER VALLEY FERTILIZER Monroe, Washington Jackson, Wisconsin STANTON AG TYLER ENTERPRISES, INC SCHALL CHEMICAL CO. SERVICES Elwood, Illinois Marion, New York **MOYER & SON** Colorado outerton, Pennsylvania NA-CHURS BALANCE BLAKELY FERTILIZER, INC. Springfield, Illinois PURE-GRO FERTILIZER PLANT FOOD Marion, Ohio enix, Arizona **GREEN GROW FERTILIZER** W.S. CLARK & SONS Tarboro, North Carolina Catossa, Oklahoma BIG BEND SUPPLY Cairo, Georg **Designates CoRoN Distributor** Designates Manufacturing Point

CoRoN now has fourteen major distributors and seven manufacturing locations to serve the lawn care industry. No matter where you are . . . CoRoN is there to meet your liquid nitrogen needs. CoRoN, Controlled Release Nitrogen; promotes even turf growth over a longer period of time, features low burn potential, assures nitrogen efficiency, is storage stable, and has low armospheric volatility.

Call one of our distributors today and join the Force That's Changing the Face of America's Lawn and Turf Industry.





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CoRoN® is a Registered Trademark of The CoRoN Corporation

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A	NDSC	APE	Jun		NAGE	MEN
	Richara	nathjens an	d Roger Fun	к, Рп.D., Т	ne Davey (20.
		Maxim	um Nutrient /	Availability		
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)pH 4	4.5 5.0	5.5 6.0	6.5 7.0	7.5 8.0	8.5 9.0	9.5 1
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HOW ROUNDUP HERBICIDE HELPS YOU GET MORE PROFIT OUT OFSITE PREPARATION



With one treatment of Roundup[®] herbicide you can get broadspectrum control of just about every variety of grass, broadleaf weed and brush you're likely to come across. Just spray the area to be planted, wait 3 days for annuals and 7 or more days for brush – and plant. It's as easy – and can be as profitable – as that.

...LAWN RENOVATION



This is a great way to use Roundup to expand your business. With Roundup, you'll be able to renovate any lawn in 1/12th the time it would take you to do the job mechanically. Just spray; wait 7 days; slice, seed and water well. Fall is the best time for lawn renovations.

... TRIMMING AND EDGING



Hand-weeding and string trimming are a waste of time. With Roundup, you'll get longer-lasting results – and do the job more easily and quickly. And remember, no matter where you use Roundup – around patios, steps, gravel driveways, fencelines, tree rings – you, and your customers, can feel confident because Roundup is biodegradable, odorless and practically non-toxic to wildlife, pets and

people. When you put Roundup to work for you, you'll be helping to make your entire operation more professional – more profitable.

Monsanto

ALWAYS READ AND FOLLOW THE LABEL FOR ROUNDUP HERBICIDE. Roundup* is a registered trademark of Monsanto Company. Monsanto Company 1988 RIP-8-101 B

Annual Nitrogen Requirement of Turfgrasses*

LANDSCAPE Quide MANAGEMENT

Species	Length of Growing Season, Months	Nitrogen per Season Ibs./ 1,000 sq. ft.	Variations in Management
Cool-Season:			
sheeps & hard fescue	4-8	0-3	low maintenance; roughs
red fescues	4- 8	1- 3	low maintenance to good care
Kentucky bluegrass	5-12	2-8	lawns, fairways
bentgrasses	4-8	1-4	medium care, lawn, fairways
bentgrass, greens	5-12	6-15	clippings removed, forced growth
Warm-Season:	Sector Sector		
zoysia	6-10	1-6	adequate cover
common bermuda	7-12	2-8	most variable
St. Augustine, bahia	10-12	2-8	warm areas, lawns
bermudagrass, fairways and tees	5-12	4- 9	good management
bermudagrass, greens	8-12	8-20	may rest over winter

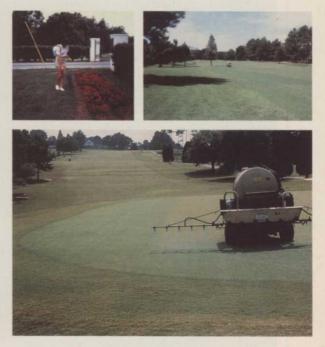
*Adapted from Turf Managers' Handbook by William H. Daniel and Raymond P. Freeborg, published in 1973 by Harvest Publishing Company, New York, N.Y.

"Let Blacon take the guesswork out of spraying!"

That's right! All of us have seen it before - that unacceptable area in our fairways or lawn. Just as important, an area where chemicals have been over-applied and a burned condition exists, and that can mean extra work for you. It's difficult to spray accurately and consistently on golf courses because every golf course is made up of countless slopes, contours, and bends. But with Blazon™ Spray Pattern Indicator you can take the guesswork out of spraying, forever. All you do is add Blazon[™] right to your spray
tank; it's totally compatible with the chemicals you use. It reduces lost time by quickly identifying a clogged nozzle, untreated or overlapped areas. In addition, Blazon™ is temporary and non-staining. C Blazon" Spray Pattern Indicator is the new solution to a never-ending problem. So contact the distributor nearest you for the product that has taken an art and turned it into a science-"The Professional Solution for Professionals"



SPRAY PATTERN INDICATOR



Milliken Chemical congratulates LANDSCAPE MANAGEMENT on it's new name.



Milliken Chemical, Division of Milliken & Company, P.O. Box 817, Inman, South Carolina 29349, (800) 845-8502



PRE-EMERGENCE WEED CONTROL (COOL-SEASON)

Prasanta C. Bhowmik, Ph.D., University of Massachusetts

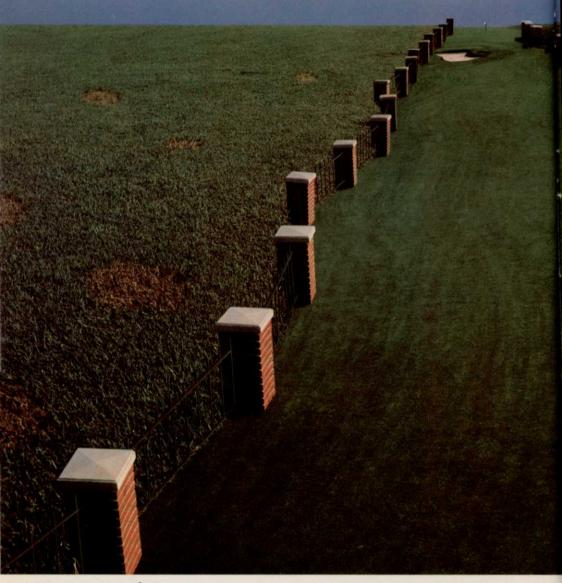
Common Name, Trade Names, Formulations, and Rate of Pre-Emergence Herbicides

Common Name	Trade Name(s)	Formulation	Recommended Rate (pound active per acre)	Company
Benefin	Balan	2.5G 2.5G	2.0-3.0	Elanco Lesco
Benefin & Trifluralin	Team (1:2)	2G 1G	1.5-3.0	Elanco Lesco
Bensulide	Betasan Pre-san Lescosan Betamac Weedgrass	4E, 7G, 12.5G 4E, 7G, 12.5G 4E, 7G, 3.6G 4E	7.5-10.0 "	ICI Sierra Lesco PBI Gordon
DCPA	Preventer Dacthal Dacthal	8.5 75WP 5G	12.5 10.5	Scotts Fermenta Lesco
Oxadiazon	Ronstar	50WP, 2G	3.0-4.0	Rhone Poulenc
Oxadiazon + Bensulide	Goosegrass/ Crabgrass Control	6.56G	7.5	Scotts
Pendimethalin	Lesco Pre-M Weedgrass	60DG,	1.5-3.0	Lesco
	Control Halts	60WDG		Scotts
	Crabgrass Turf Weedgrass	2.45G		Scotts
	Control	1.71G	1 1 1 2 2 2 2 2 2	Scotts
Siduron	Tupersan	50WP	2.0-6.0	Du Pont

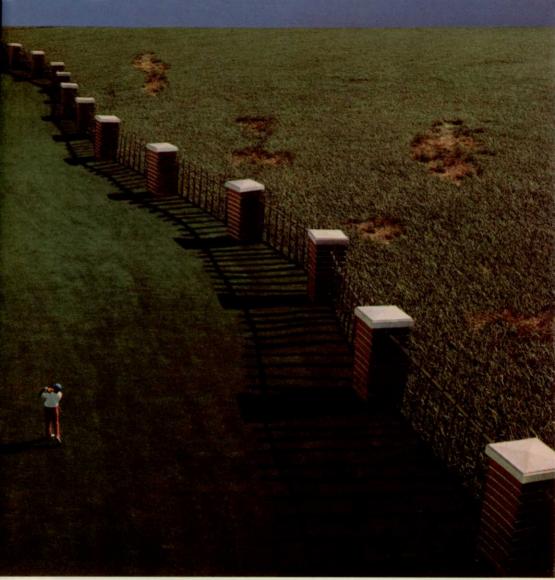
LANDSCAPE Guide MANAGEMENT

Minimum Time Necessary for Reseeding after Various Pre-Emergence Herbicide Application

Common Name	Trade Name(s)	Formulation	Recommended Rate (pound per acre)	Minimum Time Before Reseeding (Weeks)
Benefin	Balan	2.5G	2.0-3.0	6
Benefin & Trifluralin	Team (1:2)	2G	1.5-3.0	6
Bensulide	Betasan	4E, 7G, 12.5G	7.5-10.0	16
DCPA	Dacthal	75WP	10.5	8
Oxadiazon	Ronstar	50WP, 2G	3.0-4.0	16
Oxadiazon + Bensulide	Goosegrass/ Crabgrass Control	6.56G	7.5	16
Pendimethalin	Lesco Pre-M	60DG.	1.5-3.0	16
Siduron	Tuperson	50WP	2.0-6.0	N/A



Keep your fairways looking great.



Golfers love to play on beautiful fairways. It's that simple. Which is why it's so important to keep your course in top shape. That means controlling diseases like dollar spot and anthracnose. And that means a program using BAYLETON* fungicide. BAYLETON is taking care

BAYLETON is taking care of more and more beautiful fairways because more superintendents are discovering how long it lasts. How much they save in application costs by making fewer applications. And how good it makes them and their fairways look.

BAYLETON. Because golfers play favorites. Specialty Products Group, Box 4913, Kansas City, MO 64120.

BAYLETON is a Reg. TM of Bayer AG, Germany.

Bayleton

Mobay Corporation





(WARM-SEASON)

Clyde Elmore, Ph.D., University of California-Davis

Directory of Turfgrass Pre-Emergence Herbicides

Common Name	Trade Name	Formulations	Company
Atrazine	Aatrex	80W.90DG.4L	Ciba-Geigy
	Purge	4L	Security
Benefin	Balan	2.5G	Elanco
	2.5 Benefin Granular	2.5G	Lesco
Benefin + oryzalin	XL	2G	Elanco
Benefin + trifluralin	Team	2G	Elanco
Benefin + oxadiazon	Regalstar		
Bensulide	Betasan	2.9E.4E.7G.12.5G	ICI
	lescosan	4E.7G.12.5G	Lesco
	Pre-san	4E.7G.12.5G	Sierra
	Bensumec 4LF	4E	
Bensulide + Oxadiazon	Goosegrass/Crabgrass Control	5.25G + 1.31G	Scotts
DCPA	Dacthal	75W	Fermenta
	Dacthal	5G	Lesco
Ethofumsate	Prograss	1.5E	Nor-Am
Fenarimol	Rubigan	50W	Elanco
Napropamide	Devrinol	50W.5G	ICI
Oryzalin	Surflan	4AS	Elanco
Pendimethalin	Southern Weedgrass Control	2.5G	Scotts
	Turf Weedgrass Control	1.71G	Scotts
	Weedgrass Control	60DG	Scotts
	Pre-M	60DG	Lesco
	Pendimethalin	60DG	Clean Crop
Pronamide	Kerb	50W	Rohm-Haas
Siduron	Tupersan	50W	Du Pont
Simazine	Princep	80W.90DG.4L.4G	Ciba-Geigy

Tolerance of Warm-Season Turf to Pre-Emergence Herbicides

Herbicide	Bahia	Bermuda	Centipede	St. Augustine	Zoysia
Atrazine	NR		The second second		1
Benefin	T	T	1 - T	T	т
Benefin*oryzalin	Ť	Ť	Ť		т
Benefin*trifluralin	Ť.		the second s	Т	T
Bensulide	T T	T T	Ť	T I I I I I I I I I I I I I I I I I I I	т
Bensulide*oxadiazon	NR	T	NR	NR	Т
DCPA	T	Ť	T	T	T
Ethofumsate	NB		NR	NR	NR
Napropamide	T	a si ta sa	i i ta	1	TR
Oryzalin	Ť	T	T	T	Т
Oxadiazon	NR	and the second second	NR		Ť
Oxadiazon*benefin	NB	÷ 100	NR	NR	T
Pendimethalin		i i i i i i i i i i i i i i i i i i i		The second s	Ť
Pronamide	NR	T	NR	NR	NB
Siduron	NR	NR	NR	NR	NR
Simazine	NR	er h i test fi	T	T	T
T = tolerant; I = Intermed NR = Not registered	liate tolerance, ap	ply only to dormant (grass		