



A FUNGICIDE HAS TO BE SPECIAL TO BE TREATED LIKE THIS.

There are more superintendents on more courses treating more acres with Daconil 2787® fungicide than with any other turf fungicide.

In fact, nearly two-thirds of all U.S. golf courses are now being treated with regularly scheduled applications of Daconil 2787.

Because Daconil 2787 is the only fungicide that has a proven record of delivering consistent, first-rate control of 12 major turfgrass diseases. Including such tough ones as Helminthosporium melting out, benomyl-resistant dollar spot and large brown patch.

What's more, there has never been a single documented case of resistance in over 15 years of continuous use. Even on courses where Daconil 2787 was applied at weekly intervals for many seasons. Convincing proof that you don't have to alternate Daconil 2787 to avoid developing resistance.

And when it comes to cost per 1000 sq. ft., a single

application of Daconil 2787 Flowable Fungicide is more economical than most other fungicides.

Plus you never have to add a costly spreader/sticker to Daconil 2787. It's already built into the formulation to assure full and even plant coverage for maximum disease prevention.

So this season, be one of the thousands of superintendents who made the right choice. Make your fungicide Daconil 2787 on tees, greens and fairways.

Fermenta Plant Protection Company, 7528 Auburn Road, P.O. Box 348, Painesville, Ohio 44077.

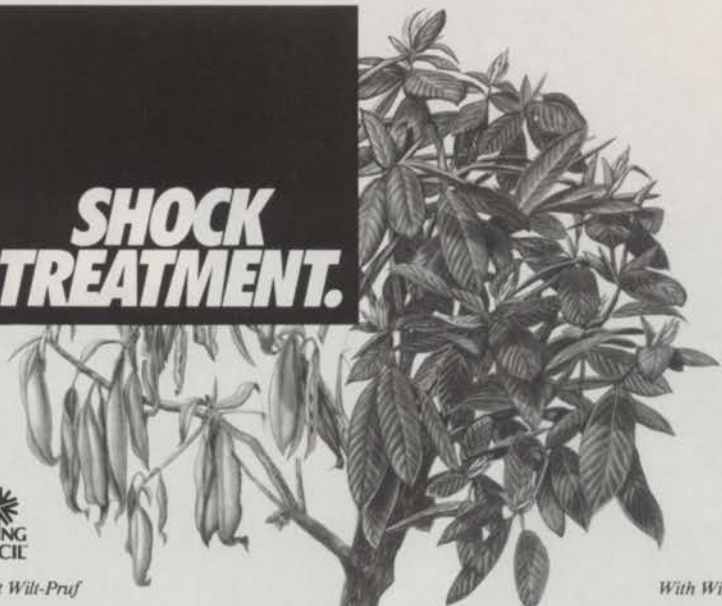


 **FERMENTA**
PLANT PROTECTION

Always follow label directions carefully when using turf chemicals.



SHOCK TREATMENT.



Without Wilt-Pruf

When plants lose too much moisture during a move, the result can be wilting, shock—even death.

Wilt-Pruf® helps prevent transplant shock by providing a protective coating that holds in essential moisture.

With Wilt-Pruf, you'll have less transplant failures and, as a bonus, more satisfied customers. Another plus, it's



With Wilt-Pruf

biodegradable and organic. Wilt-Pruf is the ideal way to give your shrubs the edge when transplanting. Don't make a move without it.

WILT PRUF®

ANTI-TRANSPIRANT
Guards against moisture loss year 'round.

P.O. Box 4280, Greenwich, CT 06830-0280. 203/531-4740

Circle No. 185 on Reader Inquiry Card



TRY A TORO PCN. FREE

To prove how well our PCN's work, we'd like to give you one FREE to test for yourself. Just fill out the attached coupon and mail to:
The Toro Company, Irrigation Division, MS-PCN
5825 Jasmine Street, Riverside, CA 92504.

Yes, I'd like to try Toro's new PCN's.

Please send me one of the following:

(CHECK ONE)

- Pressure Compensating Nozzle/15' Half Circle
- Pressure Compensating Nozzle/12' Half Circle
- Pressure Compensating Device/2.0 GPM (For 15' Half Circle)
- Pressure Compensating Stream Bubbler/SB 180 Half Circle
- Pressure Compensating Flood Bubbler/FB 100 1 GPM

Name _____

Company _____

Address _____

City _____

State _____ Zip _____

Offer expires May 31, 1987. One nozzle per customer, please.



PCN



PCD

cations of insecticide usually make fall treatment unnecessary.

Grubs—Most species of grubs are in the third of their three stages of development and are feeding actively. When soil temperatures decrease in late October and November, the larvae burrow deeper into the soil to overwinter. Severely cold winters have little effect on survival.

Treatments of existing grub infestations can be accomplished as late as mid-October, using standard grub insecticides. Treatment after this time may or may not kill the grubs before they move deeper into the soil to overwinter.

If the soil is dry, irrigation before treatment is advisable. Whenever treatment is applied, the grubs should be in the top one to two inches of soil.

Mole crickets—Mole crickets fly again in the fall, but no egg laying is known to occur at this time. The crickets are large and difficult to control in the fall. Damage becomes more severe as turf growth slows and cricket size increases. Some insecticides may work too slowly for adequate control of large crickets in October. Mocap granules, if not used earlier, can be used effectively at this time to provide up to four weeks residual control. Oftanol, if not used earlier, can be used in September, but works slowly and appears to be less dependable than when used on younger crickets.

Sod webworm—Except for the most southern areas where development is continuous, sod webworm larvae present in September will overwinter. Areas treated earlier in the season may be reinfested by this time. Treatment in early September reduces the population for next season.

Fall armyworm—Fall attacks on newly established turf from mid-September through October may result in damage that will not recover with fall fertilization. This forces the turf to enter winter in a stressed condition. Such damage can contribute to winter turf mortality.

If needed, apply controls early in the morning or late in the day when fall armyworms are most active.

Fire ants—Hot, dry periods in September and October may make fire ant control difficult. Once rain begins, fire ants become active and may be effectively controlled with mound treatments. Area treatments may be desirable in heavily infested areas with baits.

WT&T



Introducing Toro Pressure Compensating Nozzles.

Anything else would be a waste.

At last, someone's invented a perfect way to end fogging and waste in pop-up fixed spray sprinkler heads. It's Toro's exclusive new Pressure Compensating Nozzles (PCN's™). They're just one more in a long line of innovative products to come from the company who pioneered plastic sprinkler nozzles.

Great additions to Toro's top-selling 570 fixed spray head series, our PCN's are designed to correct for pressure changes caused by differences in terrain elevation, long lateral sprinkler lines or high pressure water supplies.

Stream Bubblers and Flood Bubblers to relieve more pressure.

This year, we're also the first to offer Pressure Compensating Flood Bubblers and Pressure Compensating Stream Bubbler nozzles that can be installed on a pop-up sprinkler, as well as on a riser. Besides saving water, these innovative nozzles let you take



Without Toro's PCN.



With Toro's PCN.

advantage of all the 570 pop-up features. Like safe, ground-level installation. And smooth, reliable retraction when it's not in use, for a better looking landscape.

Plus, our Pressure Compensating Stream Bubblers offer a choice of watering patterns. An adjustable

radius provides the right amount of coverage for any shape or size of flower bed arrangement. And our Flood Bubblers offer three choices of flow sizes that allow you to control the amount of water for each application.

Toro's Pressure Compensating Nozzles are available either in 15 foot standard gallowage or 12 foot low gallowage models. Pressure Compensating Devices, which allow you to convert any of our 570 Nozzles to pressure compensating, are available in eight flow sizes from 1/4 to four gallons per minute.

So if you'd like to end fogging, water more efficiently and conserve water, there's no better way to go than with Toro's Pressure Compensating Nozzles. Anything else would be a waste. For more information, contact your local Toro dealer, or Toro direct at 5825 Jasmine St., Riverside, CA 92504. (714) 688-9221.



Reduce Mowing Costs by 50% and More:

One treatment of Embark® PGR can eliminate mowing of low-maintenance turf for up to 8 weeks without harming the appearance or root system of the grass. This can be your escape hatch from Gramm-Rudman, and other budget squeezers:



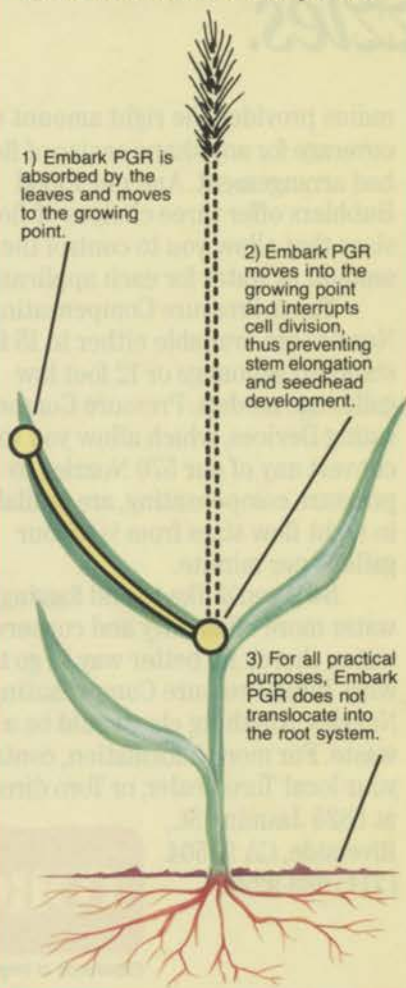
Everett Mealman, President
PBI/Gordon Corporation

How Embark PGR Works to Prevent Stem Elongation and Seedhead Development:

1) Embark PGR is absorbed by the leaves and moves to the growing point.

2) Embark PGR moves into the growing point and interrupts cell division, thus preventing stem elongation and seedhead development.

3) For all practical purposes, Embark PGR does not translocate into the root system.



Thousands of groundskeepers and vegetation control managers have proven that one spray treatment of Embark PGR can eliminate the need of mowing for up to 8 weeks of such grasses as Kentucky blue grass, fescue, timothy, perennial rye, etc.

Just think what this can do for your budget!

It costs up to \$190.00 a mile for each mowing along highways, and up to \$35.00 an acre for mowing a cemetery, a golf course rough or an industrial site, according to many analysts. Obviously, your costs will depend on your labor and equipment situation.

How Much Can You Save by Spraying Embark PGR?

The saving will vary depending on your own conditions, but in general round numbers it usually costs less to spray an acre with Embark PGR than it does to mow it. So the amount you can save by using Embark PGR depends on how often you would normally mow the area during the 8-week period that Embark PGR suppresses growth... and how interested you are in the cosmetics.

If all you want to do is suppress growth in an industrial site or a right-of-way, simply spray the area when the grass begins to grow vigorously in the spring, and forget it for 8 weeks. If you want a neater, more uniform look in an area such



Embark PGR should be tank-mixed with Trimec Broadleaf Herbicide to optimize the efficiency of maintaining grass at an acceptable height in a weed-free condition.

as a cemetery or a golf course rough, mow the grass once, either before or several days after spraying Embark PGR. To control broadleaf weed problems, tank mix the Embark PGR with Trimec® Turf Herbicide.

Embark PGR Suppresses Stem Elongation and Seedhead Development

Embark PGR is unique. No other PGR can match its efficiency in suppressing seedhead development, while at the same time maintaining the integrity of the root system along with the viability of the grass.

Embark PGR requires no rainfall or irrigation to be activated. It is absorbed through the leaves and moves directly to above-the-ground growing points in the plant. It works within the leaf sheath to slow down the process of cell division and stem elongation, and to stop seedhead development.



Use Your Present Spraying Equipment

Embark PGR can be applied when and where you need it, any time during the year when the turf is actively growing. Any equipment that is suitable for spraying herbicides will generally do for the job.

Embark PGR fits your present turf management program and frees up the work force. Get more jobs done with the same people in the same time.

Embark® is a registered trademark of 3M.
Trimec® is a registered trademark of PBI/Gordon Corporation.
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Read What Users Say About Embark® PGR

Embark PGR has been on the market since 1978, and it has been used worldwide to treat over a million acres of turf. Its efficiency and dependability is firmly established. For example:

"One mowing does the job of six. With grassy hillsides on hold for two months, crews cover more ground."

Bill Schumacher
City Civil Engineer
Seattle, WA

"Crews only trim 4 or 5 times a season. That's down from the usual 8 or 10 trips."

Larry Farnell
Holy Cross Cemetery
Milwaukee, WI

"We want roadsides to have a neat, clean appearance. Embark PGR certainly reduced our mowing costs."

E.C. "Dutch" Reiner
Northern Natural Gas Co.
Farmington, MN

Do you have any questions about PGRs?

We have a team of PGR specialists under the guidance of J.S. "Skip" Skaptason, our Vice President of Research and Commercial Development.



If you have any questions about PGRs, you are invited to call toll-free and talk to Skip or one of his team members.

Useful Mowing Cost Guide

We have a booklet with a worksheet that will enable you to compare your own mowing costs with the cost of using Embark PGR.

This worksheet will be especially helpful if you have associates who need to understand the money-saving benefits of Embark PGR.

TOLL-FREE: 1-800-821-7925.
In Missouri: 1-800-892-7281.



pbi / GORDON CORPORATION

1217 WEST 12th STREET
P. O. BOX 4090
KANSAS CITY, MISSOURI 64101

EMBARK® PGR

PLANT GROWTH REGULATOR

682/1186

WARM SEASON*	LATE WINTER (Mar.)	SPRING (Apr.-May)	SUMMER (June-Aug.)	FALL (Sept.-Oct.)
(SOUTHERN) CHINCH BUGS	In southern Fla. where resistance is a problem, use Pydrin, Pounce or Baygon as labeled for Fla. Replace susceptible turf with resistant or non-host varieties to provide natural control. In other areas, over wintered adults can be treated if they become active in March with diazinon (4 lbs. Al/acre), Dursban (1 lb. Al/acre) or Oftanol (2 lbs. Al/acre).	Application to prevent population build-up should be made by mid-April. Diazinon (4 lbs. Al/acre), Dursban (1 lb. Al/acre) or Oftanol (1-2 lb. Al/acre) provide control.	Control existing populations with Dursban (1 lb. Al/acre), diazinon (4 lbs. Al/acre) or Oftanol (1-2 lb. Al/acre) when damage signs appear. Southern chinch bugs are not as severe a problem in well irrigated turf.	Late summer applications usually make fall treatments unnecessary.
BILLBUGS	Treatment at this time can be done if adults are numerous and active. Use diazinon (4 lbs. Al/acre), Dursban (1 lb. Al/acre) or Oftanol (1-2 lb. Al/acre).	Treat when adults are active to prevent population build-up. Diazinon (4 lbs. Al/acre), Dursban (1 lb. Al/acre) provide control.	Treat billbug grubs with Oftanol (2 lbs. Al/acre) if not used in spring; diazinon (5 lbs. Al/acre) Turcam (2 lbs. Al/acre). Irrigate following application; also before if drought exists.	If necessary, treat with diazinon, Turcam, Oftanol or Dylox/Proxol as in summer.
GRUBS	Application of Oftanol (2 lb. Al/acre) during March provides control of over wintered grubs. Control usually does not extend to new generation in July and August.	Infestations can be controlled during early April by spot or general treatment with Turcam (2 lbs. Al/acre), Proxol/Dylox (8 lbs. Al/acre) or diazinon (5 lbs. Al/acre). Mocap granules (5 lbs. Al/acre) can be used on golf courses and sod farms. Sevin (1.5-2 lbs. Al/acre) is effective on green June beetle grubs; Sevin (8 lbs. Al/acre) against other grubs. Irrigate after treatment. Milky spore can be applied in early April for Japanese beetle control in areas where the grubs are numerous.	New generation grubs present in late July or by mid-August can be controlled with proxol/Dylox (8 lbs. Al/acre); Turcam (2 lbs. Al/acre); Oftanol (2 lbs. Al/acre); diazinon (5 lbs. Al/acre); or Mocap granules (commercial turf only at 5 lbs. Al/acre). Sevin SL (8 lbs. Al/acre) is effective against most grubs; (1.5-2 lbs. Al/acre) is effective against green June beetle grubs. Water immediately after treatment, also before treatment during dry summers.	Treatments are effective as late as mid-October. Irrigate first if soil is dry, then again after treatment.
SOD WEBWORMS	Treatment is not appropriate at this time.	Use diazinon (4 lbs. Al/acre), Dylox/Proxol (3.5 lbs. Al/acre), Dursban (1 lb. Al/acre) or Sevin (6-8 lbs. Al/acre) in April when larvae are present. Warm season grasses outgrow moderate damage, so treatments can be delayed until summer.	Make application to infested turf when larvae are present or two weeks after peak moth flight. Use diazinon (4 lbs. Al/acre), Dursban (1 lb. Al/acre), Dylox/Proxol (3.5 lbs. Al/acre) or Sevin (6-8 lbs. Al/acre).	Treatment in early September may reduce population for next season.





INSECT CONTROL GUIDE



CUTWORMS	Treatment usually is not appropriate at this time.	Use Dursban (1 lb. AI/acre), Dylox/Proxol (3-8 lbs. AI/acre) or Sevin (2-4 lbs. AI/acre). Apply late in the afternoon. Do not irrigate unless specified on label.	Although cutworms in the South are usually a spring problem, if summer infestations occur, treat as directed for spring.	Treatment usually is not necessary at this time.
MOLE CRICKETS	Timing of treatments is critical and varies in different areas. In years when activity of overwintered mole crickets resumes early, treatment with Oftanol (2 lbs. AI/acre), diazinon (5 lbs. AI/acre) or Turcam (2 lbs. AI/acre) is sometimes effective. Extensive treatment should be delayed until young nymphs are present. Rolling, fertilizing and irrigating warm season grasses helps tunneled turf to recover.	Monitor infested turf weekly with soap flushes to determine presence and number of young nymphs. For short-residual treatment use Turcam (2 lbs. AI/acre) or diazinon (5 lbs. AI/acre) in late April or May; Orthene 75S (2-3 lbs. AI/acre) on wet turf, unirrigated after late afternoon treatment, provides quick knockdown. Baits are effective in central Florida in May when young nymphs are present.	For residual control, use Oftanol (2 lbs. AI/acre) if not used earlier or Mocap granules (10 lbs. AI/acre on commercial turf only) on young nymphs. Irrigate immediately. Baits are effective from central Florida northward during summer. Baits available are Baygon 2% (1/2 lb./1000 sq. ft.); .5% Dursban (150 lbs./acre or two applications of 75 lbs./acre three weeks apart); malathion 2% (100 lbs./acre or two applications of 50 lbs./acre three weeks apart). Irrigate several hours before bait applications, and do not irrigate afterwards. Orthene 75S (2-3 lbs. AI/acre) can be used during summer, applied on irrigated turf late in the day and unwatered overnight.	Sprays of diazinon (5 lbs. AI/acre), Turcam (2 lbs. AI/acre) or Orthene 75S can be used in areas where outbreaks occur and may have to be repeated several times. Oftanol (2 lbs. AI/acre, may work slowly) or Mocap granules (10 lbs. AI/acre, commercial turf only) may be used, but don't use either more than once per season.
FALL ARMYWORM	Treatment is not appropriate at this time.	Populations usually do not develop until summer	Treatments are most effective in early morning or late afternoon. Use diazinon (4 lbs. AI/acre), Dursban (1 lb. AI/acre), or Proxol/Dylox (1-3 lbs. AI/acre).	Apply as directed for summer. Fall armyworms may be a greater problem in Sept.-Oct. than earlier.
FIRE ANTS	Treatments are less effective when soil temperatures are low.	Area treatments when new mounds being established in heavily infested areas with Amdro bait (1.5 lbs. bait/acre), Pro-Drone bait (.88 lb. bait/acre), Logic bait (1-1.5 lbs. bait/acre) or Oftanol (.05 lb. AI/1000 sq. ft.) are effective. Mound treatments in less infested areas include various diazinon or Dursban formulations; Orthene 75S dust (2 tsp./mound); or MC-96 mound fumigant (2 fl. oz./mound).	Treat mounds as they appear with various formulations of diazinon or Dursban; Orthene 75S dust (2 tsp./mound) or MC-96 (2 fl. oz./mound).	Apply controls to mounds or areas early in the morning or late in the day, as described for spring and summer. Irrigate dry areas or wait until rain before treating if drought conditions exist.
SCALE INSECTS	Treatment is not effective.	Chemical control for ground pearls is not effective at any time of year. Proper fertilization, disease control and adequate irrigation is the best defense.	To control Rhodegrass scale, apply diazinon (5 fl. oz./1000 sq. ft./25 gal. plus wetting agent). Retreatment is usually necessary.	Treat as directed with diazinon for summer.

* See accompanying text for details; always follow label directions.

Take Aim on Crabgrass and Goosegrass with



Acclaim®! 1EC Herbicide Brings High-Technology Down to Earth!

You've heard that Acclaim has had superior performance in turf research tests. Now try Acclaim for yourself!

Acclaim is the most exciting advancement in selective grassy weed control. It's everything you've ever wanted, and more...because Acclaim is unlike anything you've ever used.

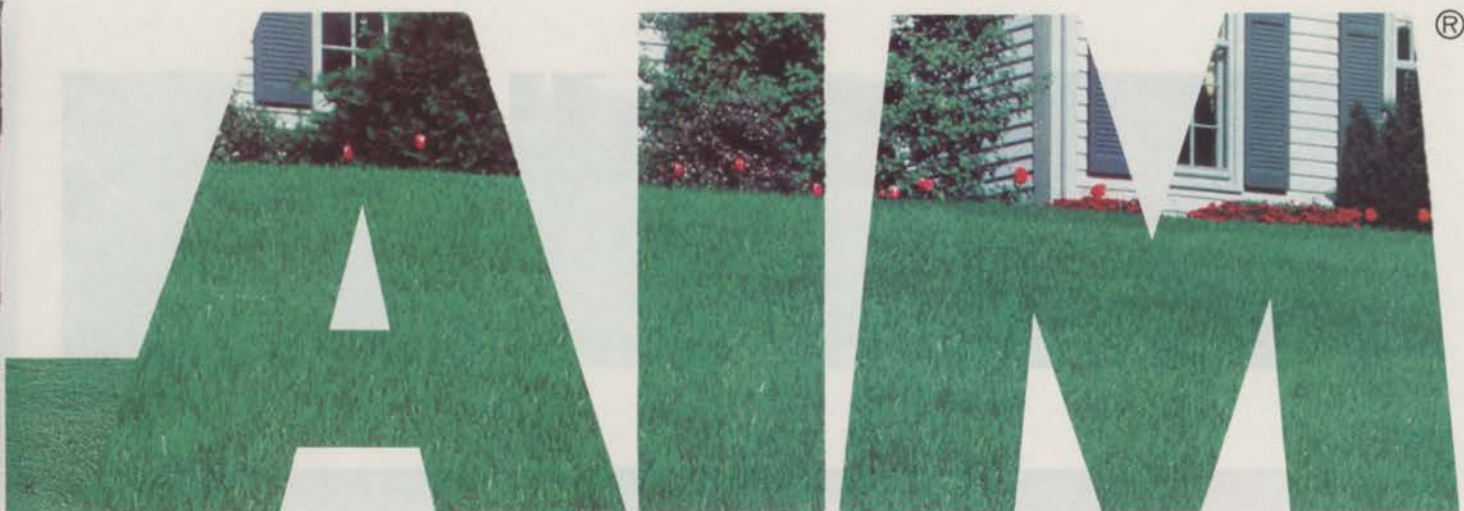
New Chemistry for Superior Performance!

The revolutionary chemical, fenoxaprop-ethyl, gives Acclaim the power to translocate from the site of contact to the heart of weed growth – without the turf injury problems associated with other postemergence herbicides.

Acclaim also eliminates the problem of unsightly patches caused by dead weeds. When applied thoroughly, Acclaim will cause the weeds to turn pale yellow in 4-10 days. In 12-21 days, leaves turn red or purple. Then, the stems turn black as the entire

DAMAGE DILEMMA

What insect caused this turf damage? Get yourself. Answers are at the bottom of the page.



1 EC HERBICIDE

weed decomposes, leaving nothing but green!

Acclaim! Lets You Reseed Fast!

Fescues and ryegrass can be overseeded immediately following Acclaim application. Bluegrass can be overseeded after 21 days. And mowing just 24-hours after Acclaim application won't reduce efficacy.

Acclaim! Fits Your Busy Schedule!

Acclaim goes right to work on grassy weeds from 3-leaves to 5-tillers in size, giving you the time you need to treat thoroughly. When applying Acclaim you can afford to be thorough, because you treat only where weeds appear. And chances are you'll need to do it only once.

Acclaim!, the Crabgrass and Goosegrass Specialist!

Whether you have fine or tall fescue, perennial ryegrass, or Kentucky bluegrass grown east of the Rocky Mountains, Acclaim lets you take aim on tough grassy weeds! With Acclaim, you can control crabgrass and goosegrass,

barnyardgrass, foxtail species, Panicum species, and johnson-grass...all with the same level of effectiveness.

Great Turf Deserves Acclaim!

As a professional, you take pride in having and maintaining lush green turf throughout the season. Well-groomed, weed-free lawns mean fewer call-backs, more renewals, and more referrals for lawn care operators; and for golf course managers – a course people can play at their best. Either way, Acclaim gets you the acclaim you deserve!

Contact your distributor to purchase Acclaim today. Take aim on grassy weeds all season long!



For information, contact your distributor or your local Hoechst-Roussel Agri-Vet Company representative.

Hoechst-Roussel Agri-Vet Company
Route 202-206 North • Somerville, New Jersey 08876

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