

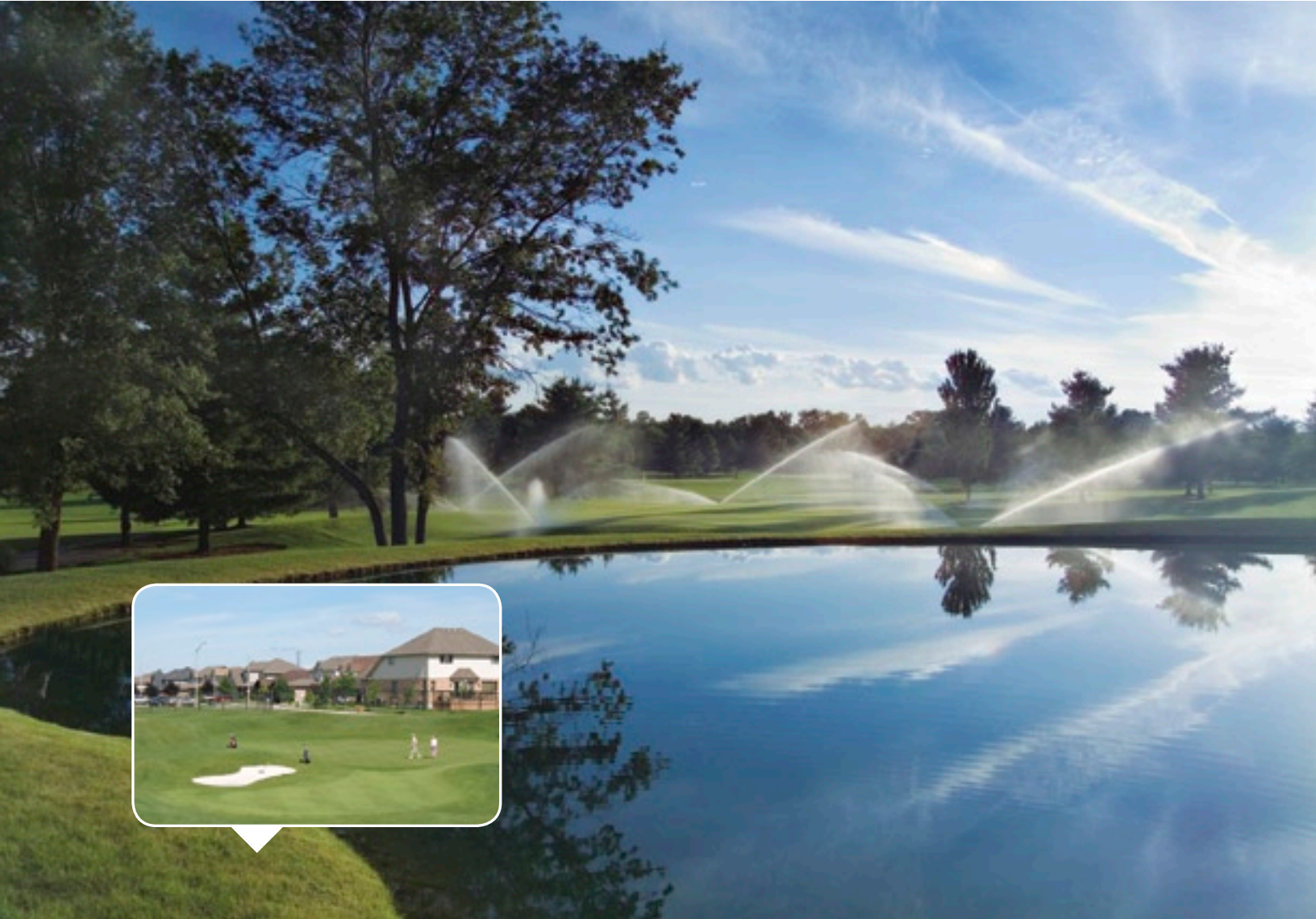


CHANGING THE GAME. FOR THE BETTER.

Effective against major fungi | Breakthrough mode of action | No resistance issues



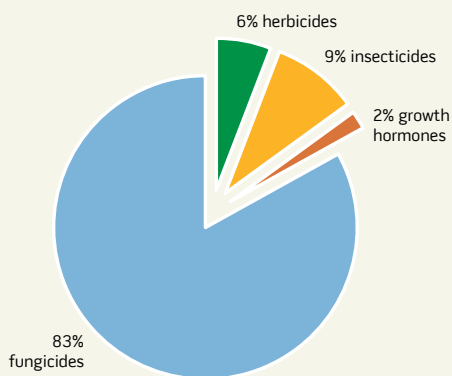
FUNGICIDES FACE INCREASING SCRUTINY BECAUSE OF THE DANGER THEY POSE TO THE ENVIRONMENT, STAFF AND GOLFERS.



Despite your care and the diligent use of Integrated Pest Management strategies, you face increasing pressure to minimize your pesticide use.

- There is increasing support to ban the cosmetic use of pesticides in major U.S. regions. In fact, over 30 states have some kind of restriction on the use of pesticides in school zones.

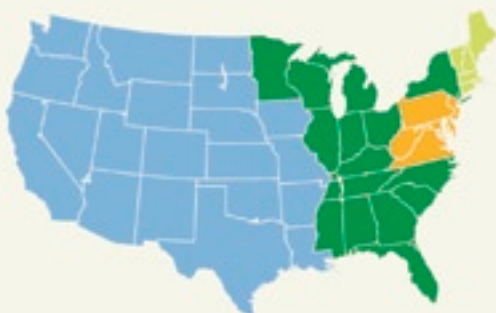
83% Of Spraying Done On A Golf Course Is To Control Fungus



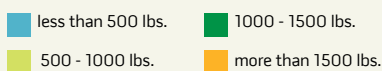
Total Pesticide Used

State of NJ – 2002 Golf Course Usage Survey Data

Most Pesticides Are Used In The Northeast Region Of The U.S.



Amount Of Pesticides Applied Per Course Per Year



Pesticides used by U.S. golf courses (1992).
Journal of Pesticide Reform/Vol.11, No.3

Your choices are limited.
And becoming more so every day.

- Leading fungicide products are going through a re-labeling process with the Environmental Protection Agency (EPA), often leading to restricted use.
- There are also increasing resistance issues facing some fungicides.

Protecting the environment is a key benefit for the golf industry.

“Owners and operators gain competitive advantage by promoting their environmental programs locally, and the golf industry overall benefits when more people are made aware of its (environmental) efforts.”

Mike Hughes, Chief Executive Officer
Prioritizing Success, 2007 National Golf Course Owners Association

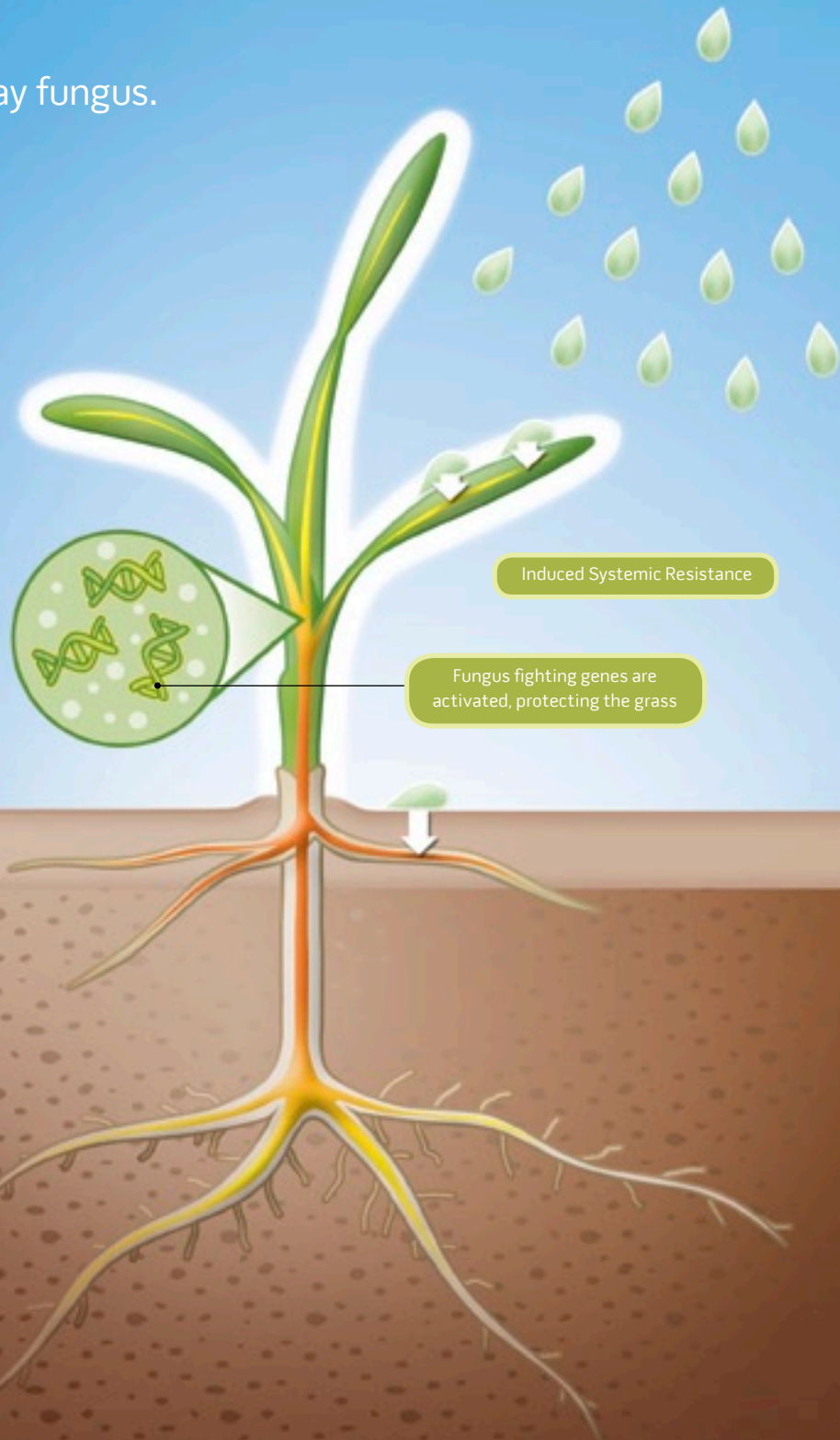


What is needed is a new chemistry that is effective in preventing the major fungal diseases that affect turf grasses without the concerns of chemical fungicides.

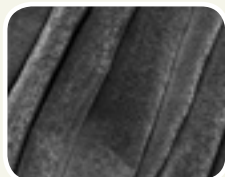
INTRODUCING CIVITAS™ – A DRAMATIC BREAKTHROUGH IN FUNGUS CONTROL TECHNOLOGY.

Here's how CIVITAS drives away fungus.

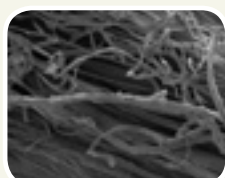
- ▶ CIVITAS is the first commercially available fungicide for the golf industry based on an Induced Systemic Resistance (ISR) mode of action.
- ▶ Unlike chemical fungicides, CIVITAS does not kill the fungus.
- ▶ CIVITAS is a “plant defense activator” that turns on the natural defenses of the plant to fight off the fungus.
- ▶ Its synthetic isoparaffin-based formulation actually defends against fungus attack. Since the fungus can't gain a foothold, it dies off.
- ▶ CIVITAS strengthens turf quality right down to the roots – you'll notice greener grass in hours.



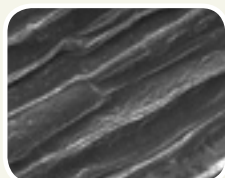
*The result is effective
fungus control... and a
healthier, greener course.*



Normal turf grass under the microscope



Turf under attack by dollar spot fungus



Turf protected by CIVITAS

Broad-spectrum control on a variety of grasses.

CIVITAS provides broad-spectrum control for use on a variety of grasses, including bent grass, rye grass and poa, controlling the primary fungi that affect your course:

- *Dollar spot*
- *Brown patch*
- *Anthrachnose*
- *Spring leaf spot*
- *Grey leaf spot*
- *Fusarium patch*
- *Leaf spot*
- *Powdery mildew*
- *Grey snow mold*
- *Pink snow mold*

CIVITAS goes above and beyond conventional fungicides in keeping insects in check with each application.

- *Sod webworm*
- *Annual bluegrass weevils*
- *Banks grass mites*
- *Mealybugs*
- *Mites*
- *Cutworm*
- *Fall armyworm*

Effective fungus control. Without the headaches.

- Works to promote turf health.
- Allows for quick re-entry time and fewer lost rounds.
- Unique mode of action helps plant fight off fungal disease.
- Ensures no resistance issues and, unlike chemical fungicides, there is no maximum use per acre.
- Delivers excellent playability.

CIVITAS CONTROLS MAJOR FUNGAL DISEASES.



Matches chlorothalonil in controlling dollar spot on fairways.

Applied at label rate, CIVITAS performed as well as chlorothalonil in controlling dollar spot on fairway height creeping bent grass.

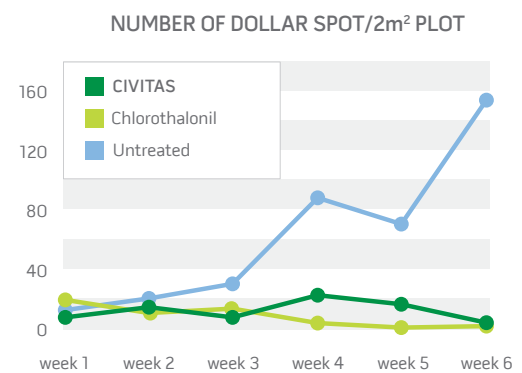
The fungal challenge is severe.

Bent grass golf courses in the Northeast and Midwest states face several damaging fungal diseases from June to November, including:

- *Dollar spot – the major issue; June to November*
- *Snow mold – the second most prevalent fungus; June to November*
- *Brown patch; June to November*

On rye grass courses:

- *Grey leaf spot – from August to November; a tenacious disease that can destroy your turf*



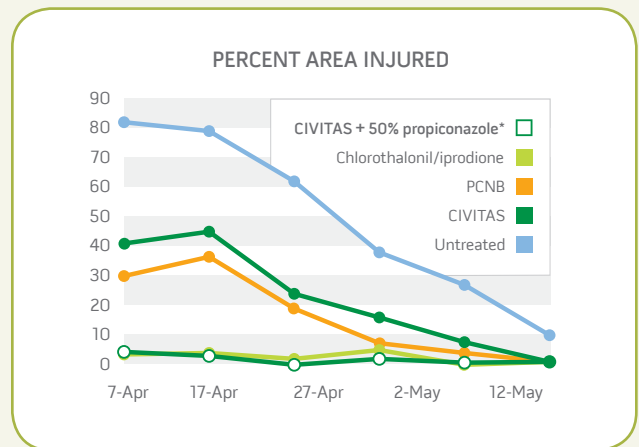
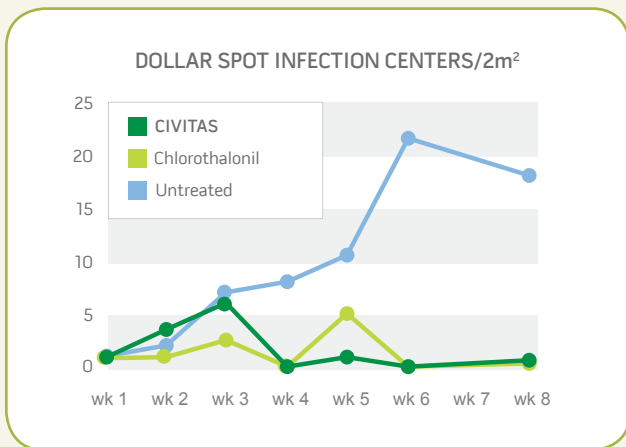
- *Done on fairway height creeping bent grass comparing CIVITAS and chlorothalonil against control in Guelph, Ontario.*
- *Treatments were applied over a six-week period at treatment intervals of 14 days.*

Delivers excellent dollar spot control in Florida trials.

Proves very effective against snow mold.

CIVITAS provided similar control of dollar spot to chlorothalonil in rough-stalk bluegrass.

CIVITAS and CIVITAS tank mix demonstrated effective control of snow mold.

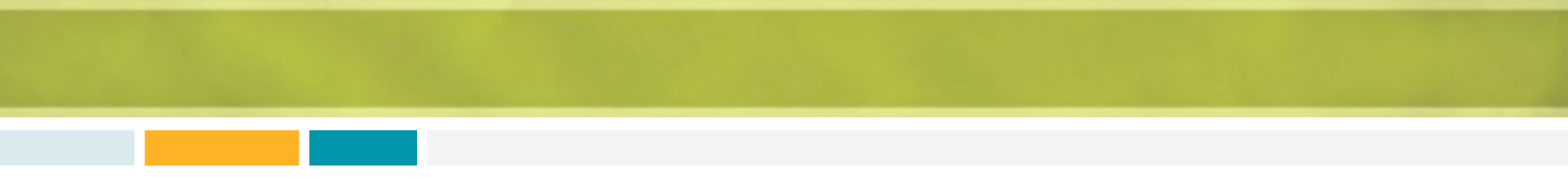


- Trials done on rough-stalk bluegrass (*poa trivialis*) cut to putting height.
- CIVITAS' new ISR technology stimulates the plant's natural defense system following an induction period. It provides the same control after a 6-week period.

- Pink snow mold testing on fairway height bent grass in Guelph, Ontario.



THE EFFECTIVE AND RESPONSIBLE WAY TO CONTROL FUNGUS.



“Golf courses and the environment co-exist in nature. It is our obligation to continue to develop them responsibly and continue to preserve the natural habitat for the beauty of the game.”

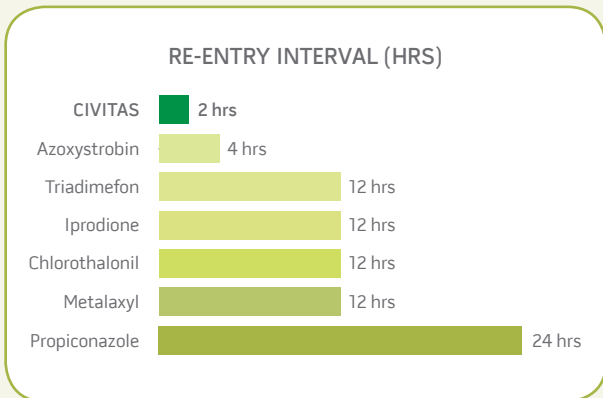
*Greg Norman, Chairman, Advisory Council,
The Environmental Institute for Golf*

CIVITAS turns on the natural fungus-preventing defenses of the turf grass, making it a powerful alternative to the harsh chemicals in your IPM strategy.

A survey of golf course superintendents in the Northeast and Midwest indicated the mode of action of CIVITAS was a key reason they would consider purchasing it over the leading brand competitor.

Shorter re-entry period under worker protection standards.

- Its short re-entry period means players can quickly get back on the course.
- Spraying can be done at any time of the day for maximum flexibility.
- Formulation keeps dew away from turf, reducing caning and keeping toxins carried in dew away from the grass.



Required re-entry intervals recommended under Worker Protection Standards

CIVITAS fits your dollar spot IPM strategy.

NORMAL CHALLENGE CONDITIONS

- Works as effectively as the leading competitor in controlling dollar spot.
- Unique mode of action works to prime the grass to fend off dollar spot.

SEVERE CHALLENGE CONDITIONS

- Tank mix with ½ label rate of propiconazole for control of severe challenges*.
- Tank mix synergies under severe disease pressures provide the potential for significant cost savings.

- Cornell University studies show traditional chemical pesticide use could be reduced up to 50% by tank mixing with CIVITAS.



*0.5 oz/1000sqft

Do not combine CIVITAS in the spray tank with pesticides, surfactants, or fertilizers, unless your prior use has shown the combination physically compatible, effective and non-injurious under your conditions. Do not combine CIVITAS with chlorothalonil, as phytotoxicity may result from the combination when applied to some species on this label.

JUST AS EFFECTIVE AS THE LEADING BRANDS. WITH NO RESISTANCE ISSUES.

Your current fungicides contribute to resistance issues.

- Resistance occurs when a fungus naturally mutates to allow it to grow and reproduce in the presence of a fungicide.
- Research and field experience show that fungicides with very specific modes of action – such as new systemic fungicides – are often at risk for developing resistance.
- Rotating fungicides with different modes of action from different groups helps reduce (but not eliminate) resistance.¹
- CIVITAS is a new synthetic isoparaffin-based fungicide that stimulates the natural defenses of the grass to fend off fungal attack.
- Fits well into your resistance management program.

“In strategies for avoiding fungicide resistance, oil is a valuable fungicide with little risk of selecting oil-resistant pathogens.”

“Pathogens have not been known to develop resistance to these [oil-based] products.”²



1. University of Kentucky College of Agriculture Plant Pathology Fact Sheet. Avoid Resistance to Fungicides Used to Control Diseases of Turfgrasses.

2. Control of plant diseases with petroleum and plant-derived oils. Spray Oils – Beyond 2000.

STRONGER ROOTS. HEALTHIER TURF.

CONTROL

CIVITAS

CIVITAS enhances root systems for improved fungal resistance.

- Using CIVITAS improves the health and strength of your turf's root system.
- Stronger roots mean healthier turf grass that's better able to fend off fungal disease.
- Turf with a stronger root system is more resistant to stress and drought because of its more robust ability to draw nutrients from the ground.



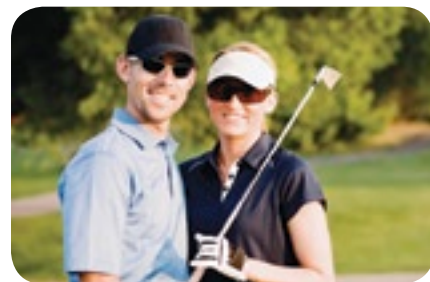
Fairway bent grass treated with CIVITAS demonstrates stronger, healthier roots

Packaging details.

- Tote – for the entire course
- 55 gallon drum
- 30 gallon drum
- 5 gallon pail – does approximately one fairway
- Dispersant in bottle format comes pre-measured for your convenience

Product support.

- Ongoing research through leading academic institutions to bring you additional breakthroughs.
- Product technical support by in-house field representatives.
- CIVITAS is available at selected distributors.



Make CIVITAS part of your rotation plan and include this exciting new breakthrough in your Integrated Pest Management Program.

Visit www.civitasturf.com for more information.

changing the game



www.civitasturf.com

