

# The Standard for Pythium Control at an Economical Cost

Featuring leading-edge MAXX<sup>®</sup> technology, Subdue MAXX<sup>®</sup> is a systemic fungicide that controls Pythium blight, Pythium damping-off, and yellow tuft (downy mildew) in turf. Its long residual of up to 21 days and low cost per 1,000 ft<sup>2</sup> make Subdue MAXX the best value for your Pythium control dollar.

# Characteristics Making It a Key Part of a Disease Control Program

#### Low Rates

Small amounts are required to do the job.

#### Compatibility

Subdue MAXX is the perfect tank-mix partner with Daconil<sup>®</sup>, Heritage<sup>®</sup>, and Banner MAXX<sup>®</sup> to control both Pythium and brown patch during the stressful summer decline months.

#### Solubility

Subdue MAXX is soluble and will penetrate into the soil to give good root protection.

#### Turfgrass Tolerance

Subdue MAXX can be used on all major turfgrass species.

#### Rotational Partner

For resistance management in Pythium control, Subdue MAXX can be alternated with Heritage.

#### How Subdue MAXX Works

#### By Systemic Action

Subdue MAXX stops disease growth and prevents the development of disease within the turfgrass plant. Subdue MAXX enters the turfgrass in two ways:

- 1. Subdue MAXX is absorbed into the turfgrass plant where it lasts up to three weeks. Subdue MAXX cannot be washed off by rain because it is inside the plant.
- 2. Subdue MAXX is absorbed by the root and translocated throughout the turfgrass plant.



#### By Contact Activity

Some of the Subdue MAXX remains on the surface of the soil and is absorbed onto the soil particles and organic matter, where it controls pathogens on contact.

#### What It Controls

Subdue MAXX effectively controls:

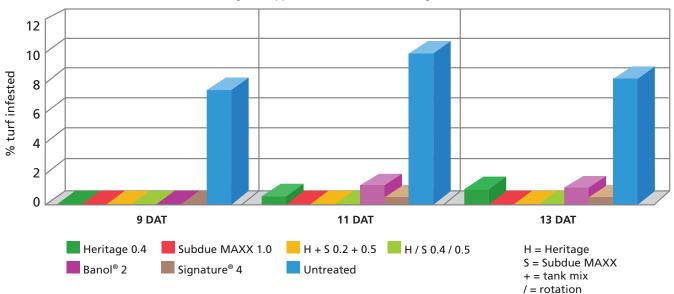
- Pythium blight
- Pythium damping-off in all turf
- Yellow tuft (downy mildew) in bluegrass
- Downy mildew in St. Augustinegrass
- Use in tank mixes with Daconil, Heritage, and Banner MAXX to control Pythium and brown patch.

#### Broader-Spectrum Subdue MAXX Means Lower Application Rates

For control of Pythium blight, Pythium damping-off, and yellow tuft (downy mildew), the preventative rate of Subdue MAXX is only 0.5 oz in 1–5 gallons of water/1,000 ft<sup>2</sup>.

### **Efficacy Trials for Post-Emergence Damping-Off**

Fungicide applications were initiated August 12, 2001



#### The Standard for Pythium Control

- Leading edge MAXX technology
- Tank mix with Daconil, Heritage, and Banner MAXX for broader control
- Up to 21 days' residual
- Lower application rates
- Best value against Pythium

Call 1-800-395-8873 to contact your local Syngenta turf and ornamental sales representative and learn more about Subdue MAXX.



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## Syngenta Overseeding Solutions for the Southwestern US

Successful overseedings are essential for any course. Fortunately, there are a number of measures you can take before overseeding, as well as afterwards, to promote the establishment of healthy, thick turf.

#### I. Preventative Fungicide Applications.

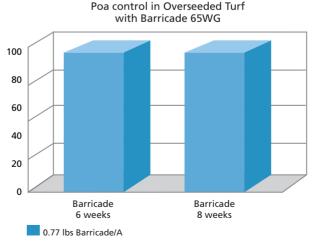
- A. For high visibility areas such as greens and tees, establishment and density of the playing surface is critical to successful overseeding. Damping-off incited by *Pythium* spp. is a serious disease of seedling turf. Frequent irrigation and high temperatures at overseeding are conducive to development and infection by *Pythium* spp. If left untreated, turf becomes spotty and void of seedlings in areas of disease activity. Seed treated with Apron XL<sup>®</sup> (active ingredient: mefenoxam) is a convenient means of applying a preventative fungicide to control *Pythium* spp. Damping-off may also occur following infection by other fungi such as *Rhizoctonia* spp. and *Fusarium* spp. For added protection against non-pythium incited damping-off, Maxim<sup>®</sup> (active ingredient: fludioxonil) should be added as a seed treatment.
- B. To ensure protection throughout the seedling development process, apply Subdue MAXX<sup>®</sup> at 0.5 to 1.0 oz/1000 ft<sup>2</sup>
  7 to 10 days after seeding. Make a follow-up application of Heritage<sup>®</sup> at 0.4 oz/1000 ft<sup>2</sup> 14 days later for consistent protection from pythium and other diseases such as *Rhizoctonia* spp.
- C. If using non-treated seed, apply Subdue MAXX at 1.0 oz/1000 ft<sup>2</sup> 1-2 days prior to overseeding, then follow the recommendations under section B.

#### II. Overseeding Preparation.

A. Successful overseedings are usually measured by the density and quality of the turf when the golf course opens for play. Any delay in re-opening is certainly not desirable. Unfortunately, superintendents have a very short window for establishment of a cool-season turf type when weather conditions favor the bermudagrass base. No sooner have you pushed the bermudagrass to establish a solid base then you turn around, scalp, and seed into it. An application of Primo MAXX® at 0.5 oz/1000 ft<sup>2</sup> (0.25 oz on greens) 1 to 5 days prior to scalping will hold back the bermudagrass, allowing the overseeding species to establish without competition. As overseeding dates are moved earlier into October and even September, bermudagrass will aggressively re-grow when the Primo® pre-overseeding application dissipates. On fairways, post-overseeding applications of Primo MAXX at 0.35 oz/1000 ft<sup>2</sup> 1 to 7 days after the first mowing, followed by a second application 21 days later, can greatly improve the density and color of the ryegrass stand.



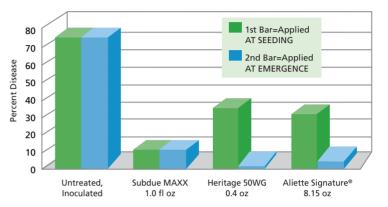
- Plot on the left was untreated
- Plot on the right was treated with Barricade<sup>®</sup> prior to overseeding, and treated with Primo MAXX 1 day and 22 days after the first mowing
- Result of trial? Density of the overseeded ryegrass is much greater in the Primo MAXX treated plot 87 days after overseeding



Application 6 and 8 weeks prior to overseeding Average of 2 yr Texas Study

B. *Poa annua* is a winter annual weed in the Southwest that effectively competes with the overseeded ryegrass. *Poa annua* may not be readily visible until the plants flower in March and April, which is too late for any remedial measures. Control of *Poa annua* prior to overseeding is now possible with Barricade 65WG herbicide in fairways, roughs, and tees. Apply Barricade 65WG 6 to 8 weeks prior to overseeding at 0.58 to 1.0 lb/acre to solve your *Poa annua* problem. A repeat application can be made 4 weeks after overseeding or when the ryegrass roots are in the second inch of soil. Total application rate on the ryegrass overseeding cannot exceed 1.3 lbs/acre. A minimum seeding rate of 350 lbs/acre is required. Special care must be taken to ensure that the seedbed does not dry out, to avoid seedling mortality. The use of Barricade prior to overseeding is completely compatible with Primo MAXX applied both pre- and post-overseeding as outlined in section A.

**Figure 1.** Control of pythium blight on *Poa trivialis* "Dark Horse" overseeded into a bermudagrass green (Datnoff—Univ. of FL, Belle Glade. 2000)<sup>1</sup>



<sup>1</sup>All treatment rates/1000 ft<sup>2</sup> Daconil ULTREX<sup>®</sup> at 3.8 oz/1000 ft<sup>2</sup> applied prior to seeding to control algae and assist in seedling establishment. Plots seeded on 23 December 1999 and rated 12 days afterwards.

Timing	Product and Rate
6 to 8 weeks prior to overseeding (not for use on putting greens)	Barricade 65WG at 0.58 to 1.0 lb/A
1 to 5 days prior to scalping	Primo MAXX at 0.5 oz/1000 ft <sup>2</sup> (0.25 oz on greens)
1 to 2 days prior to overseeding	Subdue MAXX at 1.0 oz/1000 ft <sup>2</sup> if not using Apron treated seed
7 to 10 days after overseeding (repeat 14 days later with Heritage)	Subdue MAXX at 0.5 to 1.0 oz/1000 ft <sup>2</sup> (Heritage at 0.4 oz/1000 ft <sup>2</sup> )
1 to 7 days after the first mowing	Primo MAXX at 0.35 oz/1000 ft <sup>2</sup>
21 days later	Primo MAXX at 0.35 oz/1000 ft <sup>2</sup>
4 to 8 weeks after overseeding	Barricade 65WG, if needed. Do not exceed 1.3 lb/A as a pre- and post-application to overseeding (total)

#### Overview

# Call 1-800-395-8873 to contact your local Syngenta turf and ornamental sales representative and learn more about Barricade, Daconil ULTREX, Heritage, Primo MAXX, and Subdue MAXX.



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