

New... **BioPlex**® ORGANICS
PATHOGEN
Defense **POWER+**
BIO-ACTIVE DISEASE MANAGEMENT

**A Bioactive DOLLAR SPOT Fungicide
Designed to Work in Tandem with
SDHI & DMI Fungicides**

No Acquired Resistance Potential



No Need to Replace Your Current Spray Program – Just Enhance It

PATHOGEN Defense POWER+ was designed with tank-mix flexibility in mind.

- ✓ Integrates easily into your existing fungicide rotation
- ✓ Reduces total reliance on traditional SDHI & DMI chemistries
- ✓ Maintains performance while extending resistance management

Whether you're targeting Dollar Spot, Brown Patch, Pythium or other common turf diseases, **PATHOGEN Defense POWER+** with a similar MOA boosts control without adding resistance risk—so your go-to fungicides stay effective longer.

Ask about a 16 oz FREE Product Test

(2 applications - 10,000 sf)



PATHOGEN Defense POWER+

Resistance-Free, High-Performance Turf Protection

A Fungicide Unlike Any Other – But Just as Powerful

Don't underestimate it—Chitosan, the bioactive powerhouse in **PATHOGEN Defense POWER+**, delivers disease control that rivals top-tier DMI and SDHI fungicide chemistries. Proven effective against a wide range of turfgrass pathogens, it's a natural, reliable fungicide choice for high-performance turf.

Use Alone or Team Up with Most SDHI Chemistries

Chitosan works alone or in synergy with SDHIs, both targeting respiration and mitochondrial disruption in fungal pathogens. Once applied, Chitosan stimulates the plant's natural defenses, prompting the production of Chitinase—an enzyme that breaks down fungal cell walls. The result is a biological one-two punch that enhances, rather than conflicts with, your trusted SDHI and DMI products.



ACTIVE INGREDIENT(S):

Chitosan..... 5.25%

Total Other Ingredients:

Vinegar, Water 89.75%

Proprietary Surfactant..... 5.00%

*Derived From: Processed Crustaceans,
Non-Ionic Surfactants*

Prolong the Future Sensitivity and Control of Your SDHI and DMI Fungicides!

The partial list below includes very popular SDHI and DMI turf grass fungicides, all share one thing in common - real or potential future reduced fungicidal sensitivity due to acquired Dollar Spot resistance. Less frequent use plus lower rates will ultimately reduce the Dollar Spot "Resistance Risk" potential by up to 25%-75%. Start rotating **PATHOGEN Defense POWER+** today.

Popular GC Turf Grass SDHI Fungicides

Common Name	Brand Name	Potential Resistance Risk
Pydiflumetofen	Posterity	Unknown
Isofetamid	Kabuto SC	Unknown
Fluxapyroxad	(Xzemplar)	Medium-High
Penthiopyrad	(Velisto WDG)	Medium-High
Boscalid	(Emerald)	Medium-High
Fluopyram	(Indemnify)	Medium-High
Boscalid + pyraclostrobin	Honor Intrinsic	Unknown
Fluopyram + trifloxystrobin	Exteris Stressgard	Unknown
Futalonil + thiophanate- methyl	Systar	Unknown
Fluxapyroxad + pyraclostrobin	Lexicon Intrinsic	Unknown
Isofetamid + tebuconazole	Tekken	Unknown

Popular GC Turf Grass DMI Fungicides

Propiconazole	Banner Maxx, Honor Guard, Procure	Medium-High
Myclobutanil	Eagle, Rally	Medium-High
Difenoconazole	Inspire Super, Stadium	Medium-High
Triforine	Funginex, Saprol	Medium-High
Triflumizole	Procure, Terraguard	Medium-High

Science-Backed, Course-Tested, Satisfaction Guaranteed

While SDHIs rely on 12 different chemistries—some with increasing resistance risks—**PATHOGEN Defense POWER+** uses just one: **Chitosan**. This simplicity translates into predictable results and strategic integration, helping superintendents preserve the long-term efficacy of critical DMI and SDHI products well into the future. No competitive single chemistry delivers this breadth of action—and none do it without the threat of resistance potential.

LET'S TALK... DISEASE RECOVERY DOESN'T HAVE TO TAKE LONGER AND COST MORE!



Same Turf Grass Success from East Coast to the West Coast!

“The golf course is looking good... too many golfers, so maybe too good if that’s even possible. I’m using **BioPlex PATHOGEN Defense POWER+**, **Fulvic POWER+**, and **Turf POWER+** on my greens. Seeing GREAT response on the greens and also from the golfers.”

- Eric Verellen, GC Superintendent, Snoqualmie Falls Golf Course, Washington State

CHITOSAN:

Natural – Safe – Powerful

... Chitosan is a globally recognized activator of Systemic Acquired Resistance (SAR), a natural turf grass defense mechanism that involves the release of ‘chitinase’ when perceived to be under attack by pests and disease pathogens that all contain ‘chitin’ as a principal part of their individual DNA composition.

... Chitosan is derived from Chitin, a natural polymer found in the shells of shrimp, crabs, lobsters, fungal pathogens and the exoskeletons of certain predatory insects, which is why turf grasses perceive these as threats and activate their SAR ‘chitinase’ response.

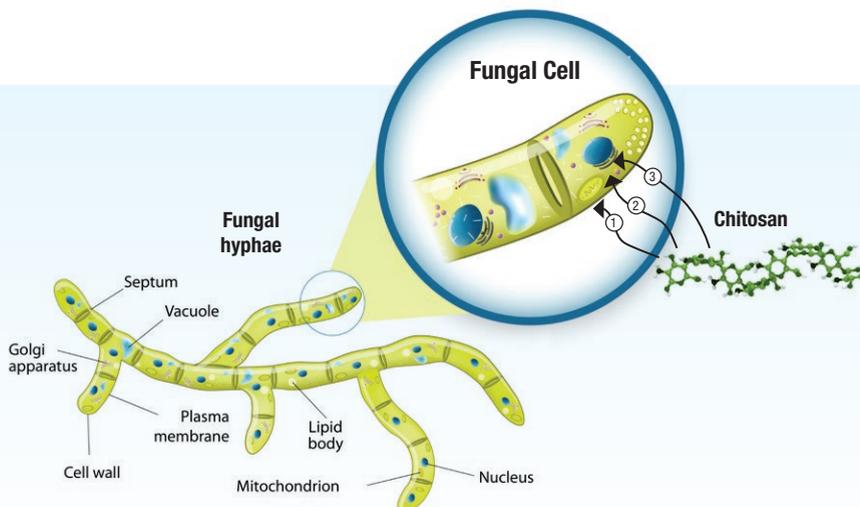
4 Modes of Action. 1 Familiar Result You Can Trust.

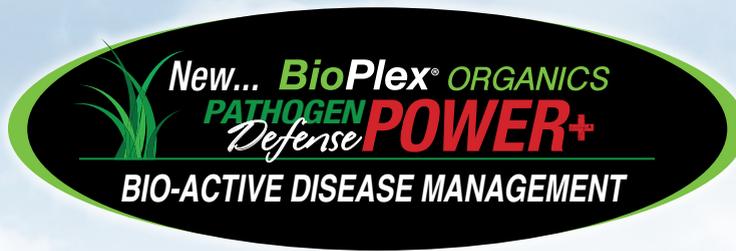
PATHOGEN Defense POWER+ goes beyond traditional fungicides with multi-layered protection. Chitosan works in tandem with SDHIs—both deliver dependable results by targeting respiration and mitochondrial disruption in fungal pathogens:

- 1. Direct Disease Control** – Cellular respiration disruption and mitochondria degradation via contact/root drench
- 2. Systemic Resistance Activation (ISR)** – Suppresses or controls over 30 fungal pathogens
- 3. Physical Barrier** – Forms a transparent, anti-fungal, anti-bacterial protective film
- 4. Enhanced Turf Immunity** – Strengthens turf from the inside out

Fungicidal Activity Pathway of CHITOSAN

- ① Fungal pathogen cell membrane, made up of (-) negatively charged phospholipids interacts with (+) positively charged chitosan molecules.
- ② Chitosan and chitinase penetrates and passes through the cell wall membrane, resulting in the degradation of the (SDH) enzyme and the Adenosine triphosphate (ATP) molecular structures present in cells.
- ③ The result, energy production is curtailed and fungal growth is arrested and the pathogen dies.





More Than Disease Control – Total Turf Health

Chitosan doesn't stop at disease defense. It supports the overall vitality spectrum of your turf and ornamentals:

- **Improved Disease Resistance** – Stronger, more resilient turf
- **Enhanced Stress Tolerance** – Withstands heat, drought, and mechanical stress
- **Stronger Growth & Vigor** – Promotes healthy metabolism and nutrient uptake
- **Deeper Root Systems** – Boosts water and nutrient absorption
- **Reduced Pest Pressure** – Activates natural pest deterrents through SAR

BioPlex PATHOGEN Defense POWER+ **Checks All the Boxes**

- ✓ **Low Cost:** Maintenance, \$26.84/A - Curative, \$72.83/A
- ✓ **High Function:** Dollar Spot, Brown Patch, Fusarium, Pythium, More
- ✓ **Non Phytotoxic** ✓ **No Resistance**
- ✓ **Tank Mix Compatible**
- ✓ **Safe, 25b EPA Exempt Fungicide**
- ✓ **High ROI**

Powerful Protection That Respects Your Budget

Performance doesn't have to come at a premium.

- Starts at only \$26.84/acre per application (Turf)
- Under \$53.68 per 100 gallons (Ornamentals)

With PATHOGEN Defense POWER+, you're not just saving money—you're investing in long-term disease control that's sustainable, effective, and resistance-free.

Don't Buy It Just Because It's Affordable...

Buy it because it works.

Buy it because it's resistance-free.

Buy it because the MOA works in tandem with SDHI chemistries.

Buy it because your turf demands more—and **PATHOGEN Defense POWER+** delivers.

Start integrating **PATHOGEN Defense POWER+** into your disease management program today. For FREE product test demo requests, pricing, or agronomic support, call or text your BioPlex Turf Specialist direct at 717-917-5126.