



**ExterisTM
Stressgard[®]**

RT
r i g b y t a y l o r

A brand new chapter in **disease management**

1st

IN ALMOST
TEN YEARS

for the turf
industry

NEW

A.I CHEMICAL
GROUP





ExterisTM Stressgard[®]

**DISEASE
MANAGEMENT**
for Microdochium
Patch & Dollar Spot

Brand new Turf Chemistry...
Brand new Turf Fungicide Group...
Brand new from Bayer...

Exteris Stressgard

Exteris Stressgard is the first combination SDHI fungicide to be launched in the UK turf sector. Expertly engineered to target microdochium patch, it contains the first new chemical group to be introduced in ten years, delivering first class disease management and proven plant health benefits.



**Disease
management**



**Stress
management**



**Plant
health**



**Turf colour
and density**

Extensive range of applications



**Golf greens, tees
& fairways**



**Sports grounds
& stadiums**



Bowling greens



Cricket pitches

Our new Exteris Stressgard fungicide has been developed for use during the peak Microdochium Patch season. This is typically when turf growth begins to slow and becomes more susceptible to disease pressure.

But Exteris Stressgard isn't just a new product, it's a **whole new category of fungicide, Succinate DeHydrogenase Inhibitor (SDHI)**. The SDHI name is derived from the fact that Exteris Stressgard interferes with a molecule in the electron transport chain. In order to make energy, fungi move electrons through a chain of different molecules. At the end of this chain ATP is produced, a molecule that all living organisms use as an energy source, Exteris Stressgard halts this process.

The last time a new chemical group was introduced for UK turf was almost **10 years ago**, so we recognise the need for new and effective solutions. Rotation of fungicide groups is essential for good resistance management and this new SDHI group offers a new choice for effective disease management.



the UK's 1st
SDHI

Fluopyram

The active ingredient in the new Exteris Stressgard



Disease management

Fungicides inhibit fungal growth by interfering with critical cellular processes. Mode of action refers to the specific cellular process inhibited by a particular fungicide. Fungicides are categorised by groups, whereby the mode of action of these categories are similar in function; the table illustrates the fungicide groups currently available to turf managers:

In nature mutations are happening all the time which means all pathogens have the potential to develop resistance. Exteris Stressgard brings a whole new group of chemical disease management increasing the ability of turf managers to proactively manage this risk. Resistance occurs when a pathogen becomes so insensitive to a fungicide that the fungicide's performance is impaired.

Fungicide group available to turf managers	Active Ingredient (AI)	FRAC code
Phthalonitrile	Chlorothalonil	M5
Phenylpyrrole	Fludioxonil	12
Dicarboximide	Iprodione	2
Quinone Outside Inhibitor (QoI)	Azoxystrobin, Pyraclostrobin, Trifloxystrobin	11
Demethylation Inhibitors (DMI)	Propiconazole, Tebuconazole, Prochloraz*	3
Succinate DeHydrogenase Inhibitor (SDHI)	Fluopyram	7

Brand new from



*Can no longer be used after 30th of June 2017

What is Exteris Stressgard?

Exteris Stressgard is a turf specific combination fungicide utilising Succinate DeHydrogenase Inhibitor (SDHI) and proven Quinone Outside Inhibitor (QoI) modes of action. Exteris Stressgard is a systemic foliar disease specialist, uniquely formulated to offer fungicidal management of microdochium patch and dollar spot along with the plant health benefits of Stressgard Formulation Technology in a single solution.

What is an SDHI?

The SDHI in Exteris Stressgard is Fluopyram which is commonly referred to as an Acropetal Penetrant. Acropetal penetrants can penetrate plants through roots, shoots and leaves. They form a protective barrier on the plant, permeate into the plant, and move upward (acropetally) in the plant's xylem. These fungicides have protective activity including some new growth and have some curative activity.



Prevention is
BETTER
than cure

Precision management for healthy turf

Preventative applications provide protection for the plant prior to disease occurrence. By selecting an appropriate fungicide in advance, longevity can be maximised by using the appropriate product for the grass growth at that time.

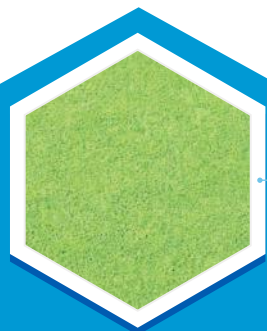
Curative applications will not cause sick tissues (already affected by the disease) to become healthy again. Curative applications can simply protect uninfected tissues.

Turf managers should be looking for early signs of disease, with preventative, rather than curative treatments. Treating disease before it occurs means that playability will not be adversely affected from the potential impact of detrimental scarring, vital to ensure the best playing surfaces throughout the year.

Exteris Stressgard gives both preventative and early curative disease management. The flexibility of Exteris Stressgard allows for applications throughout the year and under a wide variety of environmental conditions.

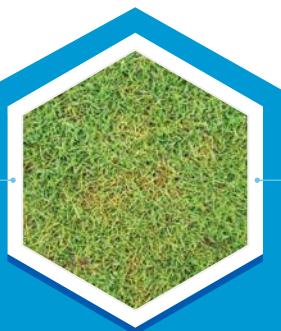
Exteris Stressgard stages of application for Microdochium

← Preventative → ← Curative → ← Eradicant →



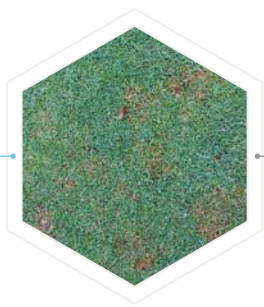
Stage one

Spore Germination
Spores are present but they are not visible to the naked eye



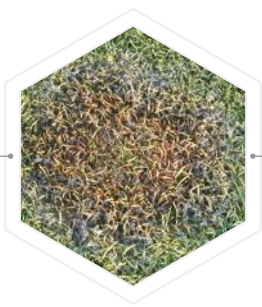
Stage two

Very first signs of Microdochium development
Visible to the naked eye



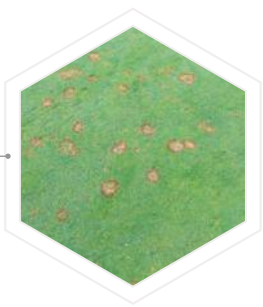
Stage three

Early Microdochium spreading



Stage four

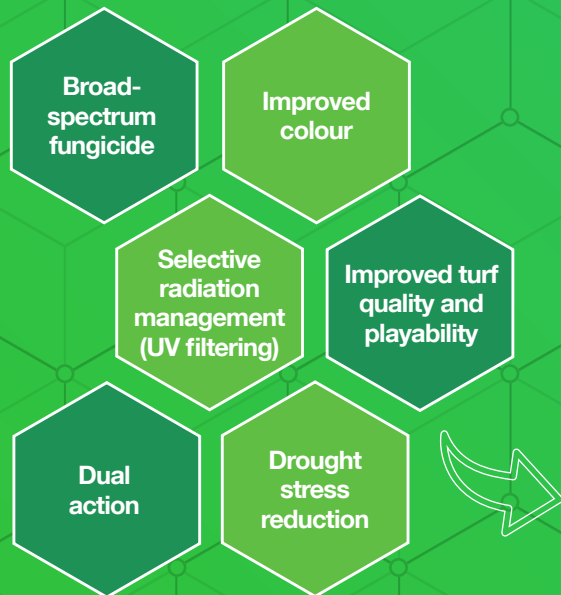
Microdochium spreading with mycelial growth



Stage five

Fully developed Microdochium

Advantages of Stressgard Formulation Technology[®]



StressGard[™] Formulation Technology is a unique combination of active ingredients, inert ingredients and turf specific co-formulants. It is the combination of these which help the product perform so well in unique turf disease stress conditions. StressGard[™] Formulation Technology is specifically designed for turf and has been fine tuned to upgrade the performance of the product, providing superior disease management leading to visibly healthier turf.



Sam Nunn
Southwold Golf Club
Head Greenkeeper

The course gets a lot of traffic and has a high risk of microdochium patch (fusarium). It's had a history of the disease, so we need to treat preventatively for it. Due to the potential severity of the microdochium patch, Bayer gave us the opportunity to run some trials on their latest product, Exteris Stressgard, and we've seen fantastic results.

Exteris Stressgard was applied on 1st September to all greens. Then we treated the same area a month later on 1st October with Interface[®] with Stressgard[™] Formulation Technology. Chipco[®] Green was applied on 3rd November, and Interface[®] with Stressgard[™] is the last treatment in the programme.

After the first application we saw no disease - without it i'm pretty certain we would have had a disease outbreak. We saw some small signs of disease later in the season, but nothing noticeable and overall preventative treatment has been a great success with this new product. I would have expected to see something by now without using it as part of the Bayer fungicide programme.

And because this is completely new chemistry to the market, it gives greenkeepers more options and limits the chance of resistance build-up. We're losing valuable actives to the market, and the more we have at our disposal the more tools we have to alternate for effective disease prevention.



Benefits of Exteris Stressgard



Targeted Microdochium prevention



Flexible water volumes



Quick dry time & absorption



Resistance management



Reduces damage from harmful UV radiation



Provides Biotic & Abiotic stress reduction

Technical application details

Active ingredients	Dose rate	Water volume	Diseases treated	Application interval	Applications per year
Fluopyram 12.5g/L Trifloxystrobin 12.5g/L	10L/ha	200 - 600 L/ha	Microdochium Patch Dollar Spot	14 - 28 days	2



Bayer

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Exteris and Stressgard are registered Trade Marks of Bayer. Exteris Stressgard (MAPP17825) contains Fluopyram and Trifloxystrobin. Use plant protection products safely. Always read the label and product information before use. Pay attention to the risk indications and follow the safety precautions on the label. For further information visit www.environmentalscience.bayer.co.uk or call the Bayer Turf Solutions team – 0800 1214 9451 or 01223226500.

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