

# Fungicide programmes for proactive turf disease control

TECHNICAL UPDATE

February 2008

## In Brief

- **Turf diseases are becoming more aggressive - hitting earlier and going on for longer**
- Turf managers need to adopt new strategies to cope with disease
- **Rotation, Rotation, Rotation is the rule for long term disease control**
- Demands for ever higher quality turf create greater pressure for more effective control
- **New disease forecasting systems enable better disease control programmes**



*Proactive fungicide programmes will deliver better quality turf and, where used effectively, will do so at lower cost and with fewer fungicide applications.*

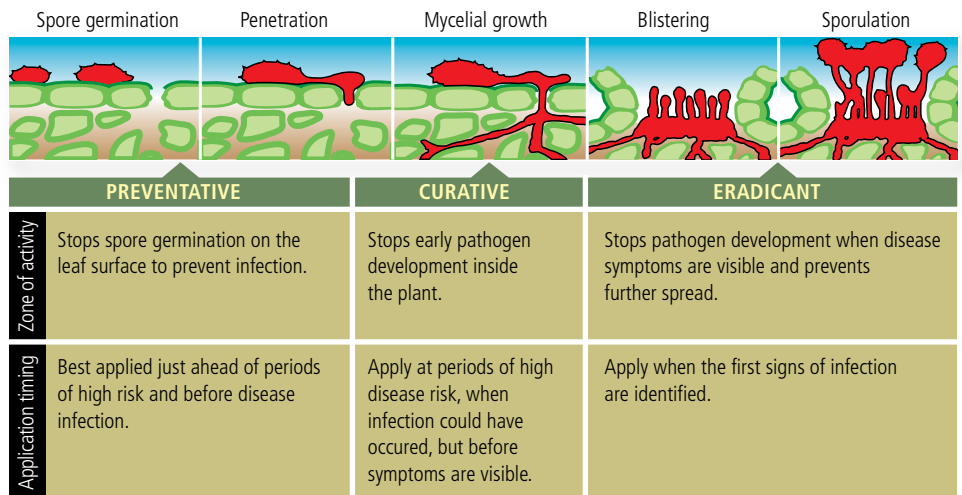
## Fungicide selection suits the time and the place

Turf fungicides work in a variety of ways; targeting disease at different points in their life cycle and with different modes of action. Syngenta fungicide programmes are designed to select the optimum choice for any disease, at any stage in the season.

Preventative fungicide applications – when disease infection has taken place, but before any symptoms are visible – have proven most effective in maintaining higher turf quality.

Well-timed preventative fungicide applications, using risk forecasts on [www.greencast.ie](http://www.greencast.ie), can deliver the longest protection from effective products.

Where disease symptoms are already present, a fungicide with a curative and eradicator activity must be used.



	Contact and Systemic Fungicides – WHEN TO USE											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
CONTACT	Red	Red	Red	Red	White	White	White	White	White	Red	Red	Red
CONTACT/SYSTEMIC	White	White	White	Yellow	Yellow	White	White	White	Yellow	Yellow	White	White
SYSTEMIC	White	White	White	Green	Green	Green	Green	Green	Green	Green	White	White

### For effective results turf managers must select a fungicide with:

- The greatest efficacy on the primary disease pathogen present
- The right mode of action for the time of year
- To right activity for the stage of disease life-cycle



	Chlorothalonil	Azoxystrobin	Propiconazole
Activity	Contact Preventative Curative Eradicant	Systemic Preventative Early Curative Anti-sporulant	Systemic Preventative Curative Eradicant
Diseases on label	Fusarium Patch Dollar Spot Anthracnose Red Thread	Fusarium Patch Take All Anthracnose Fairy Ring Leaf Spot Brown Patch Rusts	Fusarium Patch Dollar Spot Anthracnose Brown Patch
Additional effects	Leaf spot		Leaf spot

Armed with the knowledge of how each fungicide works, the diseases it will effectively control and the optimum time for its use, turf managers can develop a comprehensive programme for season-long disease control (left).

All Syngenta fungicides control a broad spectrum of turf diseases. An application of HERITAGE to counter the threat of anthracnose in June, for example, will also control Fusarium Patch (Microdocium Patch), Brown Patch, Fairy Ring, Take-All patch and other diseases.

### Fungicide programme facts:

- Select fungicides for appropriate disease activity
- Change modes of action for each application
- Develop a full ITM package
- Remember the rule – Rotation, Rotation, Rotation

	Individual diseases programmes for high risk situations											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Fusarium Patch												
Anthracnose												
Dollar Spot												
Brown Patch												
Take-All Patch												
Leaf Spot												
Fairy Ring												
Rust												

- HERITAGE
- BANNER MAXX
- DACONIL WEATHER STIK

Mode of action: **QOI**

Mode of action: **Multi-site**

Mode of action: **DMI**

### Rotation beats resistance

Fungicide programmes are essential in supporting the Integrated Turf Management (ITM) principles to minimise the risk of disease resistance developing.

GreenCast has an important role in selecting the most appropriate fungicide programmes, utilising all the products from the Syngenta range. It supports the sound agronomic principle of rotating fungicides with different modes of action (left), to retain the highest levels of long-term turf disease control.

### Top tips on Managing Resistance

- Rotate fungicides with different modes of action throughout the season
- Avoid repetitive and sole use of a particular fungicide, or those with the same mode of action
- Always try to mix or alternate appropriate fungicides with different modes of action (always consult manufacturer for advice on tank mixing)
- Do not reduce rates of strobilurin fungicides in tank mixes
- Integrate fungicide use with cultural control methods

For a copy of the 'Syngenta Guide to Turfgrass Disease Management' email [customer.services@syngenta.com](mailto:customer.services@syngenta.com) or visit the website [www.greencast.ie](http://www.greencast.ie)