



WETTING AGENT



# Breaker Dynamic

- \* Best ever control and prevention of Dry Patch
- \* Maximises irrigation efficiency – make best use of the water you apply
- \* Improved penetration system gets active even deeper into the soil profile and through the hydrophobic layer
- \* Long lasting effects give benefits every time you irrigate
- \* Moves moisture away from turf surface
- \* Encourages improved root growth
- \* Extremely safe to turf, no risk of scorch
- \* Liquid, granular, tablet and fairway formulations

### Application rates – Programme Application

Area of use	Breaker Dynamic	Water Volume	Area
Golf greens, golf tees	1 litre	35-45 litres	500m <sup>2</sup>
Bowling greens	3 litres	105-135 litres	1,500m <sup>2</sup>
Golf fairways, sportsfields	20 litres	700-900 litres	1 ha

### Application rates – Single Season Application

Area of use	Breaker Dynamic	Water Volume	Area
Golf greens, golf tees	2.5 litres	225 litres	500m <sup>2</sup>
Bowling greens	7.5 litres	675 litres	1,500m <sup>2</sup>
Golf fairways, sportsfields	50 litres	4,500 litres	1 ha

### Recommended nozzles e.g. Hypro, Hardi (guide only)

Equipment	Spray quality	Hypro Nozzle		
		Type	Colour	Code
Power Sprayer	Coarse	Flat fan	White	F110-08
Knapsack (boom)	Coarse	Flat fan	Brown	F80-05

Equipment	Spray quality	Hardi Nozzle		
		Type	Colour	Code
Power Sprayer	Coarse	Flat fan	White	FF08 110

### Walkover Sprayers

Groundsman Quantity per 25 litre fill to treat 525m <sup>2</sup> (476l/ha)	Professional Quantity per 25 litre fill to treat 668m <sup>2</sup> (374l/ha)
525ml x 2 fills	668ml x 2 fills

Apply product at half strength and cover area twice.

### Recommended nozzles for vehicle mounted sprayer (guide only)

Hypro Nozzle	Colour	Code	Hardi Nozzle	Colour	Code
	Light green	F110-05		Light blue	110-10



## NEXT GENERATION WATER MANAGEMENT TECHNOLOGY FOR TURFGRASS

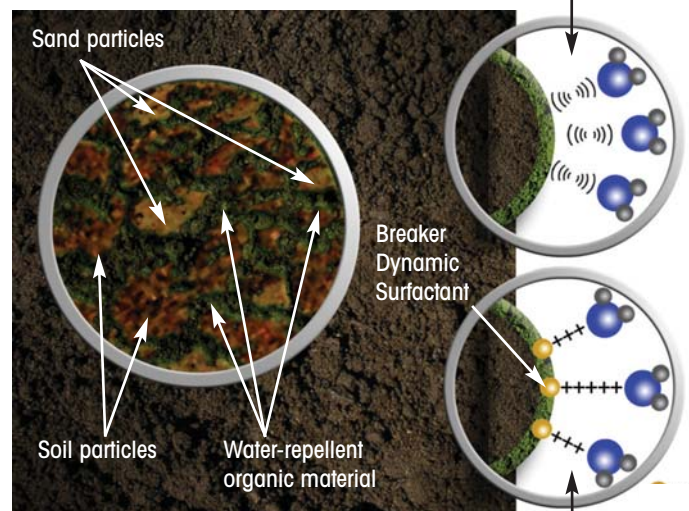
Building on the industry-leading wetting agent Breaker Advance, **Breaker Dynamic** is more than just a product upgrade, it is a completely new surfactant technology giving ultimate Dry Patch control and management of water-related problems.

### Dry Patch

Dry Patch results from a build up of organic matter on soil particles caused by fungal mycelium deposits, such as those left behind following Fairy Rings. This deposit is made up of waxes and lipids and is highly water-repellent (hydrophobic). This hydrophobic coating prevents water from attaching to, and wetting, the soil. **Breaker Dynamic** can attach to both water and the organic coating providing a 'bridge' or link between two otherwise incompatible substances and allows the soil to be re-hydrated.

#### Without Breaker Dynamic

Water is repelled from the soil particles by the presence of water repellent organic material



#### With Breaker Dynamic

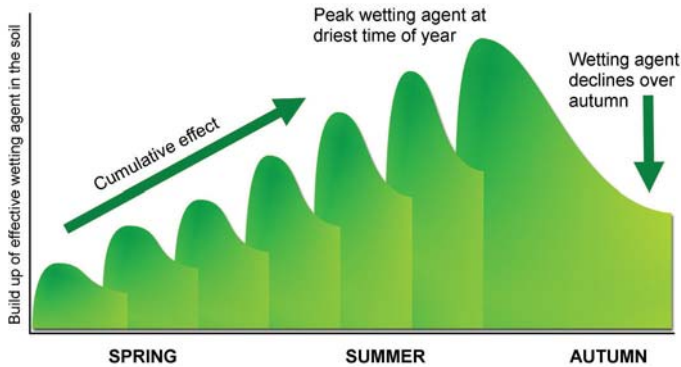
Breaker Dynamic Surfactant forms a bridge between the water repellent organic material and the water allowing the soil to be rehydrated

### Breaker Dynamic Chemistry

**Breaker Dynamic** is formulated with a blend of surfactants and penetrants. These alter the structure of water molecules to allow them to spread out and move both horizontally and vertically within the soil profile. By lowering surface tension, water droplets are able to spread out giving maximum coverage over the soil surface. The penetrants then ensure water is moved down through the soil profile and thatch layer to where it is needed in the rootzone.

The chemistry used in **Breaker Dynamic** is an extremely long repeating chain of tri-block co-polymer surfactants. This remains in the soil profile and provides a long term link between water repellent soil and irrigation. It breaks down

slowly over time giving long-lasting rewetting performance. Tri-block co-polymer surfactants are used as these allow different chemical properties to be combined into one active. Surfactants are selected that have excellent spreading properties, others with excellent penetration and others with long term rewetting. These are all blended to make up **Breaker Dynamic**.



### University Trial Results

Independent trials carried out at University of Georgia, USA, 2010 on USPGA spec golf green. Investigating water repellency and irrigation efficiency. These support similar trials at the STRI and IBERS (university of Aberystwyth).

- \* **Dynamic surpassed all other treatments**
- \* **Revolution and Breaker Advance needed approx. 1.2cm more irrigation water than Breaker Dynamic to reach the same soil moisture levels**
- \* **Breaker Dynamic reduced MED (measure of water repellency) to 0 following initial application**
- \* **The data also indicates that the efficacy of the Breaker Dynamic is between 4 and 8 weeks after the last application**

### HOW TO USE BREAKER DYNAMIC LIQUID

#### 1. Programme Application

Make the first two applications in early spring (mid-March) at 7-10 day intervals before appearance of Dry Patch symptoms. Repeat as necessary during spring to autumn period. Typical applications are made at monthly intervals. Watering-in is optional as required.

Severely affected areas maybe spot treated as necessary – application should be carried out in conjunction with aeration to aid penetration.

#### 2. Single Season Application

Apply a single application in early spring (mid-March) before Dry Patch problems appear. This must be watered-in.

#### Compatibility Recommendations

Tank mixing recommendations are shown on page 50.

#### Breaker Dynamic Liquid

Contains: Polyoxyalkylene glycol surfactants and soil penetrant

Pack size: 10 litres  
Also available in 120 and 200 litre drums

Pack coverage: 5,000 sq.m (Programme)  
2,000 sq.m (Single)

RT order code: 0423905/10

#### Breaker Dynamic Granules

Pack size: 20 kg  
Pack coverage: 1,000 sq.m

RT order code: 0423906/

#### Breaker Dynamic Tablets

Pack size: 25 tablet  
Pack coverage: Variable  
RT order code: 0423902/ SD Tablets  
0423903/ HD Tablets

Use plant protection products safely. Always read the label and product information before use.

## Breaker Dynamic Granules

**Breaker Dynamic Granules** use the same formulation as the liquid product but utilises an advanced dust free, uniform granular carrier specifically developed for turf application.

### HOW TO USE BREAKER DYNAMIC GRANULES

Make 2 applications at 7-10 day intervals in spring (mid-March) before the appearance of Dry Patch symptoms. Repeat as necessary or at monthly intervals throughout the growing season. Watering-in is optional as required.

#### Rate of Application

Area of use	Breaker Dynamic Granules	Area
Golf greens, golf tees	10 kg	500m <sup>2</sup>
Bowling greens	30 kg	1,500m <sup>2</sup>
Golf fairways, sportsfields	100 kg	5,000m <sup>2</sup>
Large areas	200 kg	10,000m <sup>2</sup>

Apply using conventional fertilizer spreading equipment.

## Breaker Dynamic Tablets & Applicator Gun

### HOW TO USE BREAKER DYNAMIC TABLETS

**Breaker Dynamic Tablets + AA** are the latest development of the hose-end wetting agent tablet utilising **Breaker Dynamic** surfactant technology. Amino Acids have been included in the formulation to enhance recovery of the turf. They are available in both standard density (SD), and high density (HD) for use when water pressure is over 5 bar.

They are designed to be used through the **Breaker Dynamic Applicator Gun** to spot treat isolated areas of Dry Patch. The applicator is fitted with a Cloudburst Nozzle giving large droplets and outstanding fan pattern.

#### Application

*Spot treatment* – one **Breaker Dynamic Tablet** will spot treat 6-7 average sized golf greens (applied at approximately 10 minutes per green).

*Overall treatment* – use one **Breaker Dynamic Tablet** per golf green.



## Breaker Fairway

Fairway products contain the new **Breaker Dynamic** formulation but are specially modified to make them ideal for use on fairways and outfield areas. All are applied at 40 litres per ha in 400 litres of water and are available in 200 litre containers giving up to 5ha of coverage.

**Number 1:** Standard formulation.

**Number 2:** Includes 2% Fe (chelated) +2% Seaweed.

**Number 3:** Includes 2% Fe (chelated) +2% Seaweed +2% Amino Acids + 2% Carbohydrate

