



# AFFIRM™ WDG

A PROVEN LEADER IS NOW AVAILABLE IN CANADA. MANAGE BASAL ROT ANTHRACNOSE AND RHIZOCTONIA DISEASES WITH AFFIRM'S UNIQUE MODE OF ACTION.

## CHALLENGE

Managing turfgrass disease and disease resistance development are both of high importance. When many of the products available to control troublesome disease work through the same mode of action, it can be difficult to create a fungicide rotation program that works well at tackling the disease and managing development of resistance. Canadian superintendents need additional products with unique FRAC numbers to include in their programs.

## NUFARM SOLUTION

Now available in Canada, Affirm™ WDG fungicide offers a unique mode of action to control many tough turf diseases while helping to mitigate disease resistance development. Affirm has been a proven leader in the United States, delivering excellent control to anthracnose and rhizoctonia diseases. In Canada, superintendents can also count on Affirm for Waitea patch control and snow mould suppression. Plus, Affirm may be tank mixed with Tourney® for increased dollar spot control.

## REGISTERED USES

Turfgrass on golf courses, sod farms, commercial and industrial lawns – creeping bentgrass, creeping fescues, Kentucky bluegrass, perennial ryegrass, and *Poa annua*, plus outdoor ornamentals

DISEASES CONTROLLED	APPLICATION RATES	APPLICATION NOTES
	g / 100 m <sup>2</sup>	
Anthracnose	27	Apply in 6–8 L of water per 100 m <sup>2</sup> on 14-day interval.
Brown ring patch/ Waitea patch		Preventive and curative use: Apply when conditions favour disease development or turf has a history of disease and at first appearance of disease symptoms.
Red thread		
Brown patch	27	Apply in 6–8 L of water per 100 m <sup>2</sup> on 14-day interval.
Leaf spot and melting out		Preventive use: Apply before disease symptoms are observed when conditions favour disease or turf has a history of disease.
Yellow patch		
Fairy ring (types I and II)	27	Apply in 11–17 L of water per 100 m <sup>2</sup> on 7- to 14-day interval. Tank mix with non-ionic surfactant applied at 130–190 mL/100 m <sup>2</sup> . Preventive and curative use: Apply when conditions favour disease development or turf has a history of disease and at first appearance of disease symptoms.
Grey snow mould (suppression)	27	For snow mould suppression, apply in minimum of 8 L of water per 100 m <sup>2</sup> in fall. Reapply on 21-day interval in late fall or early winter.
Pink snow mould (suppression)		

PCP NO.	32920	FRAC NO.	19
ACTIVE INGR.	polyoxin D zinc salt (11.3%)		
FORMULATION	water-dispersible granule		
CHEM. FAMILY	polyoxins		
PACKAGE SIZE	3 x 1.09 kg bag one bag treats 1 acre (at 27 g/100 m <sup>2</sup> )		
RAINFAST	avoid application when heavy rain is forecast		
APPLICATION / SEASON	three		
SURFACTANT NEEDED	non-ionic surfactant for root diseases		



## BENEFITS

- Unique FRAC 19 offers a new tool for disease resistance management rotation programs
- Controls all rhizoctonia diseases, anthracnose, and suppresses grey and pink snow mould
- Works through contact and translaminar activity for up to 14 days of control
- Tank mix compatible, good partner with Tourney for control of listed diseases and dollar spot
- Excellent rotation partner for managing resistance to SDHI and DMI fungicides

## PERFORMANCE TIPS

- Combine with a DMI fungicide for best control of an anthracnose and dollar spot mix
- To prevent disease from spreading onto golf greens, always treat aprons and fairway approaches
- In high pH situations (8 or above) performance could be compromised and an acidifying agent is recommended





Jeff Sexton, Madisonville Country Club, Bugwood.org

### ANTHRACNOSE CONTROL

Although anthracnose can be found on fairways, tees, and rough, it is most prone on golf greens and most devastating to creeping bentgrass and annual bluegrass. Anthracnose may develop in two forms: basal rot or foliar blight. Disease symptoms vary greatly ranging from small, irregular spots one to ten centimeters to large circular patches up to one meter in diameter. In the case of basal rot look for dark and rotten leaf sheaths, crowns, and stolons. Foliar blight will start at the leaves, dying back from tips of the oldest leaves before progressing to newer growth. Since anthracnose is stress induced, close mowing and excessive traffic make course greens a prime host candidate. Untreated, anthracnose may cause severe turf damage.

### PREVENTIVE CONTROL >> % INFESTED ON BENTGRASS/POA



**AFFIRM WDG 27 g/100 m<sup>2</sup> /VS/ UNTREATED**  
B. Clarke, Rutgers Poa/bent green 2008.



**AFFIRM WDG August 10 /VS/ AFFIRM WDG September 1 /VS/ UNTREATED**

J. Geunhwa, Univ Wisc 2005. Affirm WDG applied at 27 g/100 m<sup>2</sup>. 14 day treatments applied June 20, July 5, August 1 and August 15.



### WAITEA PATCH CONTROL

Waitea patch occurs when temperatures are around 26°C. Temperatures around 32°C during the day often results in more dramatic symptom patterns. This is a rhizoctonia-like fungus also known as brown ring patch. The disease looks superficially like yellow patch, which can lead to early mis-diagnoses. Unlike yellow patch, Waitea patch typically develops in asymmetrical patches. The outer edge of the patch may turn brown but in many cases the predominate symptom pattern is yellow rings from 3 to 30 centimeters in diameter. Infected areas tend to be soft and sunken as the pathogen degrades thatch on greens. If left untreated or treated too late, it causes a major change in the putting surface that will take the greens a long time to recover from.

### CURATIVE CONTROL >> % DISEASE



**AFFIRM WDG 27 g/100 m<sup>2</sup> /VS/ UNTREATED**  
Torrey Pines GC, F. Wong (UC-R) and L. Stowell (PACE). Applied May 12.



Poa green, Torrey Pines GC, San Diego CA. Brown ring patch is caused by the fungus Waitea circinata. Two weeks after treatment, May 26. Photo by L. Stowell



### SNOW MOULD CONTROL

**GREY SNOW MOULD:** Grey snow mould is usually found in areas with the greatest snow accumulation. You'll notice white crusted areas of grass in which blades are dead, bleached and matted together. The bleached areas range from 7 to 30 centimeters across. A key indicator is the presence of hard pinhead-sized fungal bodies called sclerotia. Light to dark brown in coloring, sclerotia are embedded in the leaves and crown of infected grass plants. Grey snow mould typically only damages the blades of grass.

**PINK SNOW MOULD:** Fungal spores are web-like, and pile up on the leaves of infected grasses, producing a white to pink to salmon color on circular patches of matted grass. On taller-mown turf, disease patches may not be circular. Pink snow mould does not produce sclerotia. Under severe conditions, the fungus can kill the crowns and roots of grass as well as the blades. Unlike grey snow mould, snow cover is not necessary for pink snow mould infection.

### SNOW MOULD >> % DISEASE ON BENTGRASS



**AFFIRM WDG + TOURNEY /VS/ UNTREATED**  
Applied November 5 to bentgrass at 27 g/100 m<sup>2</sup> Affirm WDG + 11.2 g/100 m<sup>2</sup> Tourney. Fred Vaughn, Horseshoe Valley, ON, 2013

### SNOW MOULD >> % DISEASE ON BLUEGRASS



**AFFIRM WDG + TOURNEY /VS/ UNTREATED**  
Applied November 15 to bluegrass at 27 g/100 m<sup>2</sup> Affirm WDG + 11.2 g/100 m<sup>2</sup> Tourney. Fred Vaughn, Barrie, ON, 2013

William M. Brown Jr., Bugwood.org