



## **SYNC<sup>®</sup> Fungicide Activator Improves Fungicide and PGR Performance**

Optimizing the performance of fungicides involves a complex interaction between the host plant, fungus, fungicide active ingredient and formulation. The performance of all fungicides is affected by:

- Placement on the leaf blade
- Viability of the active ingredient in the spray droplet
- Spray volume
- Systemic fungicides entering the plant

SYNC<sup>®</sup> improves the placement of the fungicide on the leaf blade, optimizes the ability of systemic fungicides to penetrate the waxy cuticle on the leaf surface and buffers the spray solution to optimize fungicide solubility.

SYNC's 100% active formulation contains:

- A nonionic surfactant system for improved coverage
- An amine polymer complex that improves penetration
- Neutralized carboxylic acid that buffers the spray solution



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Additional research is available at  
[www.precisionlab.com/sync](http://www.precisionlab.com/sync)

# CONTACT FUNGICIDES

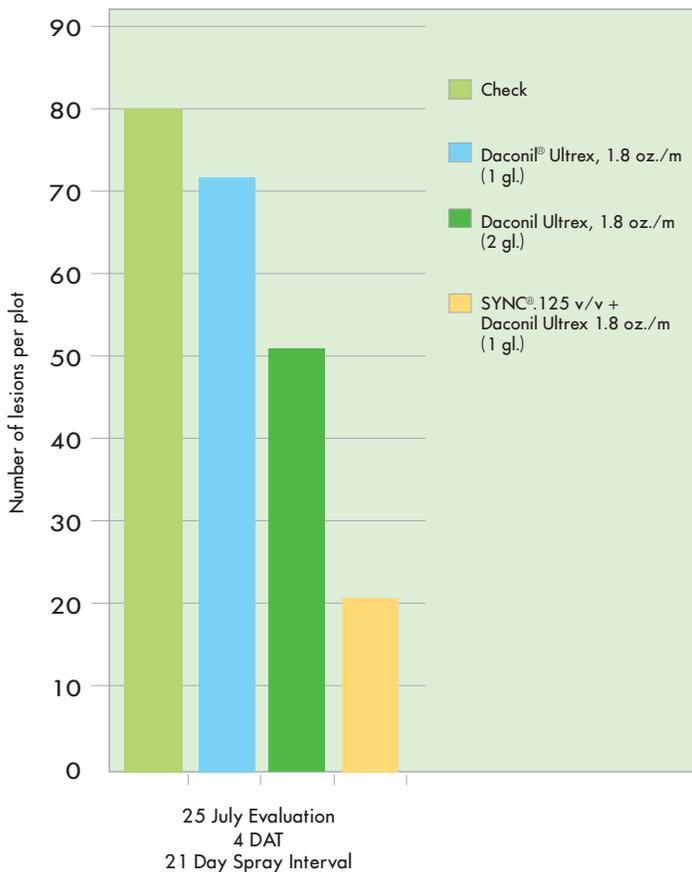
## Fungicide/Adjuvant Interaction:

### Contact Fungicide Performance

- The carbohydrate-based surfactant in SYNC optimizes the performance of contact fungicides by improving the placement of the fungicide on the leaf blade and enhancing the viability of the active ingredient in the spray droplet.
- University research proves that a tank mix containing SYNC and a contact fungicide improves and lengthens disease control, even when the fungicide is applied at reduced spray carrier water volumes.
- These fungicides typically control a broad range of turf diseases such as dollar spot, brown patch, anthracnose and many others.
- They often control the disease at multiple sites in its development.
- They normally do not require rotation with other classes of fungicides.
- They do not enter the plant to be effective.

### Dollar Spot Trials

Dr. Bruce Clarke, Rutgers University



Daconil, 1.8 oz./m, (2 gl.)  
13 DAT, 21 day interval



Daconil, 1.8 oz./m + SYNC .125 v/v, (2 gl.)  
13 DAT, 21 day interval

# SYSTEMIC FUNGICIDES

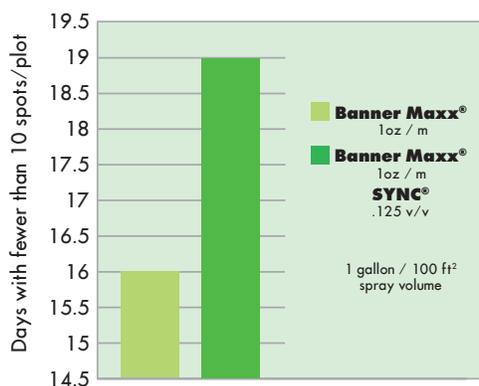
## Fungicide/Adjuvant Interaction:

### Systemic Fungicide Performance

- Systemic fungicides must penetrate the leaf blade to be effective.
- The amine polymer complex in SYNC optimizes the ability of systemic fungicides to penetrate the waxy cuticle on the leaf surface.
- Most systemic fungicides target limited sites in the development of the fungi.
- These fungicides can move acropetally (upward) or basipetally (downward) in the plant.
- To avoid disease resistance, rotate these products with a different class of fungicide.

#### Length of Dollar Spot Control

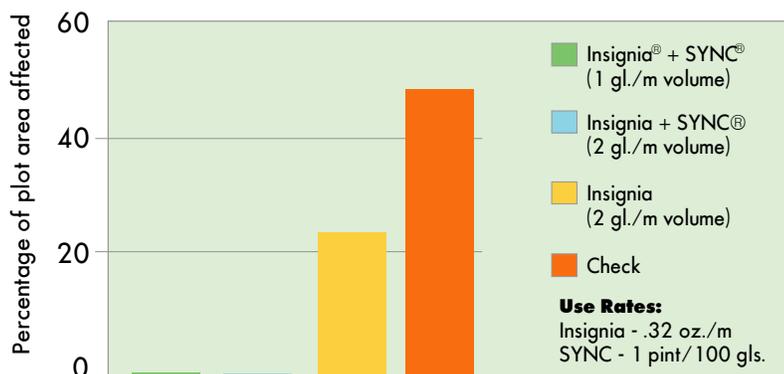
Creeping Bentgrass Fairway, Rutgers



A study at Rutgers showed a nearly 20% increase in length of control with SYNC

#### Fairway Dollar Spot Trial

Dr. Randy Kane, CDGA

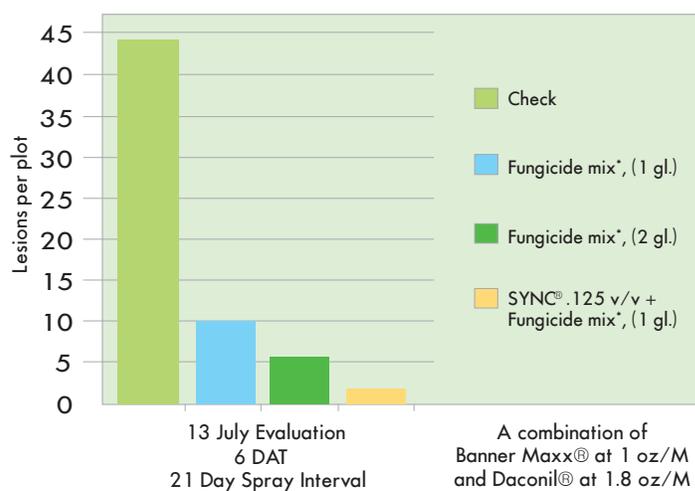


### Contact/Systemic Combined Fungicide Performance

- Combining different classes of fungicide in a single tank mix to broaden the spectrum of control and avoid disease insensitivity is a common practice among fungicide users.
- The unique, multi-component composition of SYNC optimizes fungicide performance even in tank mixes containing both contact and systemic fungicides.
- University research proves that SYNC improves the bio-efficacy of contact and systemic fungicides-even when the fungicides are combined in a tank mix and applied at reduced spray carrier water volumes.

#### Dollar Spot Trials

Dr. Bruce Clarke, Rutgers University



# OPTIMIZED PGR PERFORMANCE

The performance of foliar-applied plant growth regulators is affected by placement on the leaf blade and penetration into the plant.

SYNC improves the placement of PGRs on the leaf blade and optimizes the ability of the PGR to penetrate the waxy cuticle on the leaf surface. SYNC also buffers the spray solution to optimize the performance of tank mix partners.

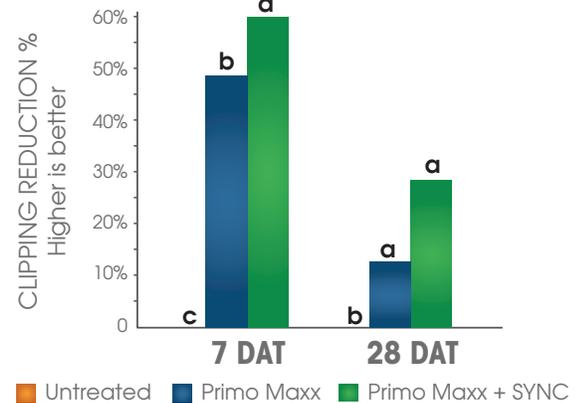
A Penn State study looked at the effectiveness of SYNC when tank-mixed with Primo Maxx<sup>®</sup>, a plant growth regulator used to reduce clipping production and enhance playing surfaces on golf courses.

Research findings indicate that the performance – both in terms of reduced clipping production and overall turf quality – of Primo Maxx improved when used with SYNC.

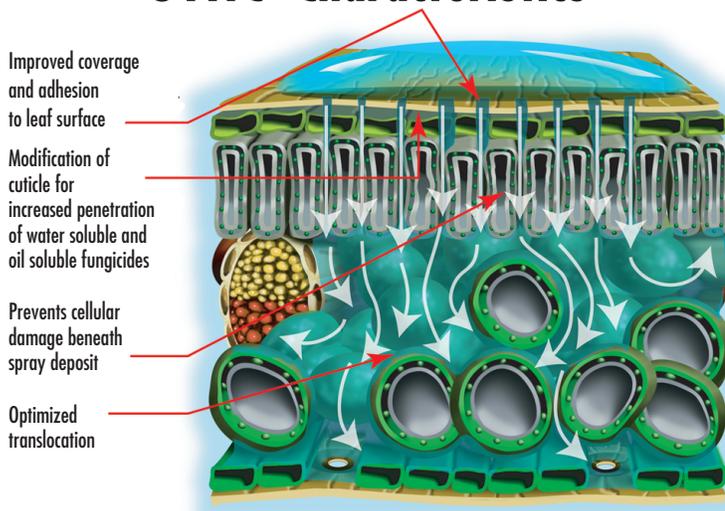
“... the SYNC product tank-mixed with Primo Maxx was associated with improved plant growth regulation effects versus Primo Maxx applied alone...”

Michael Fidanza, Ph.D,  
Penn State University

**CLIPPING REDUCTION**  
PENN STATE



## SYNC<sup>®</sup> Characteristics



### SYNC Activates Fungicides by:

- Maximizing droplet retention and coverage on fine turfgrass leaf blades.
- Improving fungicide formulation solubility and availability.
- Forming persistent spray deposits that resist wash-off.
- Maximizing the penetration and translocation of systemic fungicides into the plant.

### SYNC offers:

- Maximized fungicide performance against a wide range of turf diseases
- Greater longevity of disease control
- Improved turf health
- Optimized playing conditions
- Ability to reduce water volume, application time, labor, and interference with play

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Primo Maxx is a registered trademark of Syngenta Corp.

**SYNC<sup>®</sup>**  
FUNGICIDE ACTIVATOR

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