

# POSTIVA FUNGICIDE

## TECHNICAL BULLETIN

### Product Overview

Postiva™ fungicide is the most recent innovation from Syngenta for reliable, long-lasting disease control in the ornamentals market. It is powered by ADEPIDYN® technology (*pydiflumetofen*) and *difenoconazole* in FRAC Groups 7 and 3.

Postiva is labeled to provide broad-spectrum control of leaf spots, flower blights, powdery mildew and soilborne diseases such as *Fusarium spp.* It can be applied as a spray or drench to ornamentals, vegetable transplants and non-bearing fruit and nut plants grown for retail sales. Applications should begin prior to or at first sign of disease for the most effective control.

### Modes of Action

ADEPIDYN technology was developed by Syngenta as the first member of a new subclass of SDHIs (succinate dehydrogenase inhibitors). It is a pyrazole carboxamide in FRAC Group 7, featuring a unique molecule designed to combine the best features of carboxamide fungicides for broader activity and longer residual performance.

Upon application, it quickly moves from the leaf surface into the wax layer, becoming rainfast and creating a layer of protection. Within 24 hours, it begins to slowly penetrate and spread within the plant tissue, providing further disease control. ADEPIDYN technology inhibits energy production within the fungal pathogen, preventing spore germination, penetration and mycelial growth.

#### ADEPIDYN TECHNOLOGY

##### Power

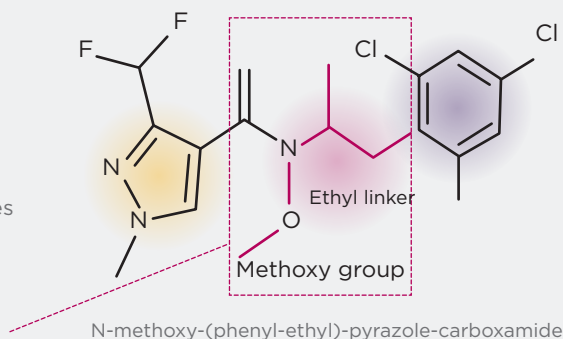
Pyrazole carboxyl group - characteristic of most potent and efficacious products

##### Stamina

Lipophilic part - enables greater length of control against a broader range of diseases

##### Spectrum

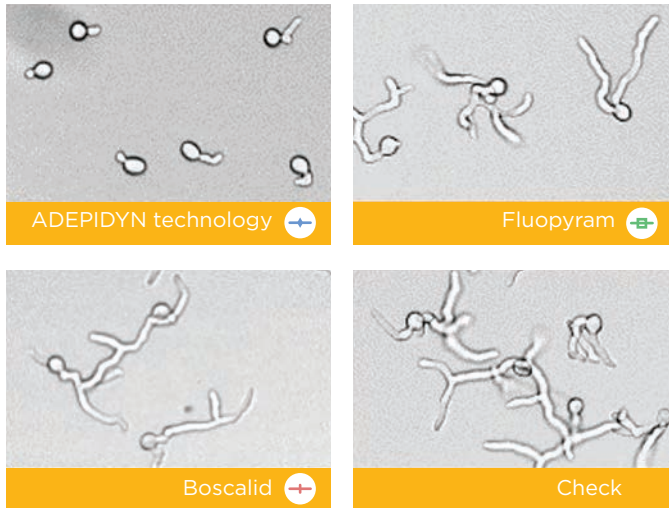
Unique N-Methoxy ethyl linker makes it possible to combine these best-in-class features into a single molecule for the first time



 **Postiva™**  
Fungicide

syngenta®

## Inhibition of Spore Germination



At 0.0046 ppm, ADEPIDYN technology shows greater inhibition of *Botrytis cinerea conidia* spore germination compared to other SDHI fungicide treatments.

*Difenoconazole* is a demethylation inhibitor (DMI) in FRAC Group 3. This active ingredient prevents the production of ergosterol in the cell membrane from being incorporated, causing cell walls to weaken, leak and collapse. As a triazole, *difenoconazole* has systemic and curative properties. It has a strong affinity to the wax layer of plants, which can lead to longer residual control. Over time, the active ingredient moves into the tissue, where it then follows the xylem movement towards the leaf edge. *Difenoconazole* offers curative activity by preventing germ tube elongation and mycelial growth, limiting disease development and sporulation.

The combination of active ingredients in Postiva provides disease control through two different modes of action, offering a strong defense against multiple pathogens while helping prevent the development of resistance.

## Foliar and Soilborne Disease Control

Postiva has activity against a wide range of ornamental pathogens. Please refer to the product label for a complete list of diseases controlled.

DISEASES	CROP	APPLICATION
<b>Leaf Blights/Leaf Spots/Rusts</b> Including: <i>Alternaria spp.</i> , <i>Cercospora spp.</i> , <i>Cercosporidium spp.</i> , <i>Cladosporium spp.</i> , <i>Colletotrichum spp.</i> , <i>Corynespora spp.</i> , <i>Drechslera spp.</i> , <i>Didymella spp.</i> , <i>Guignardia spp.</i> , <i>Gymnosporangium spp.</i> , <i>Helminthosporium spp.</i> , <i>Monilinia spp.</i> , <i>Mycosphaerella spp.</i> , <i>Phoma spp.</i> , <i>Phragmidium spp.</i> , <i>Puccinia spp.</i> , <i>Septoria spp.</i> , <i>Stemphylium spp.</i> , <i>Tranzschelia spp.</i> , <i>Wilsonomyces spp.</i> , <i>Diplocarpon rosae</i> , <i>Uromyces spp.</i>	Ornamentals Cucurbits Fruiting Vegetables Tomatoes	Foliar
<b>Flower Blights</b> Including: <i>Colletotrichum spp.</i> , <i>Elsinoe spp.</i> , <i>Ascochyta spp.</i> , <i>Botrytis cinerea</i>	Ornamentals Cucurbits Fruiting Vegetables Tomatoes	Foliar
<b>Powdery Mildews</b> Including: <i>Sphaerotheca spp.</i> , <i>Erysiphe spp.</i> , <i>Leveillula spp.</i> , <i>Oidium spp.</i> , <i>Oidiopsis spp.</i>	Ornamentals Cucurbits Fruiting Vegetables Tomatoes	Foliar
<b>Bacterial Diseases (Suppression)</b> Including: <i>Pseudomonas spp.</i> , <i>Xanthomonas spp.</i> , <i>Ralstonia spp.</i>	Ornamentals	Foliar & Drench
<b>Soilborne Diseases</b> Including: <i>Rhizoctonia spp.</i> , <i>Fusarium spp.</i> , <i>Sclerotinia spp.</i>	Ornamentals	Foliar & Drench
<b>Shoot/Stem Diseases</b> Including: <i>Rhizoctonia spp.</i>	Ornamentals Fruiting Vegetables	Foliar & Drench

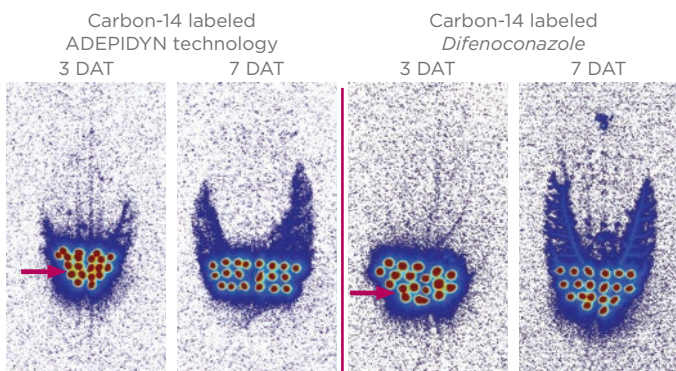
## Fungicide Movement within Plant Tissue

The Carbon-14 labeled micrographs illustrate the movement of each active ingredient in Postiva when applied to a leaf or apical bud.

### Mobility of Postiva Fungicide Movement in Dicot/Apple

#### Foliar Application

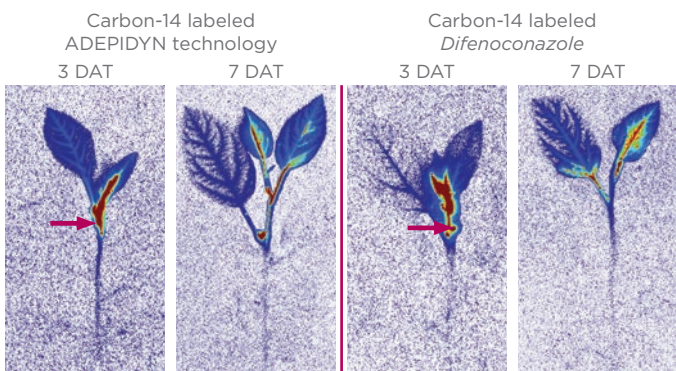
This fungicide shows moderate redistribution in the leaf when applied to the foliage.



2017- Jealotts Hill, Syngenta

#### Apical Bud Application

Applications absorbed by the petiole and apical bud result in the upward systemic movement of the fungicide, protecting new tissue.



2017- Jealotts Hill, Syngenta

Radioactivity concentration



High

Low

Application Site →

DAT = Days After Treatment

## Application and Use Recommendations

Treatments of Postiva may be applied as a foliar spray or soil drench through various types of spray equipment commonly used for making ground and aerial treatments, including chemigation or through auto cold fogging systems.

The use rate is 10 - 28 fl. oz./100 gal. for foliar and soil applications.

Postiva has a 12 hour restricted-entry interval (REI) and a caution signal word on the label.

## Application Sites

Postiva can be applied in:

- Greenhouses
- Nurseries, including field- and container-grown plants that have been grown in outdoor growing structures
- Conifer nurseries
- Residential and commercial landscapes

It can also be applied to edible crops, such as vegetable plants and juvenile (or non-bearing) fruit, nut and vine plants. Immature or inedible fruit and nuts may be present on the plant at the time of application but should not be intended for consumption.

## Resistance Management

Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Since Postiva contains active ingredients from FRAC Groups 3 and 7, it is recommended to not alternate or tank mix with products having the same mode of action or with products to which sub-optimal performance/resistance has already developed.

The following practices are recommended:

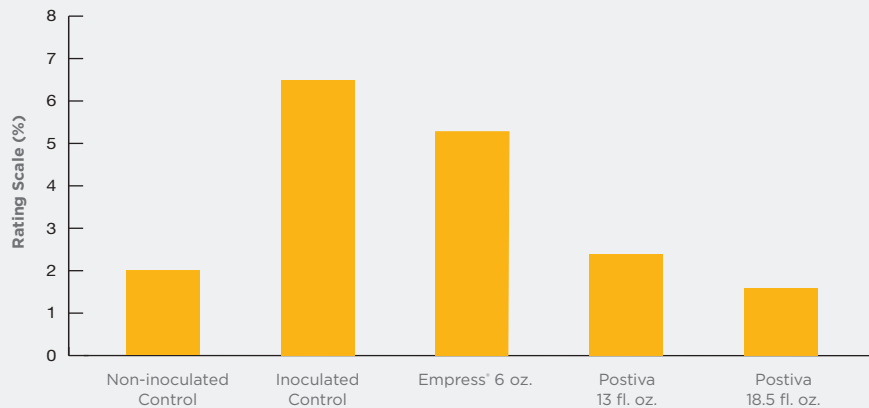
- Apply no more than two sequential applications per crop before rotating to another effective product with a different mode of action known to provide satisfactory disease control when used alone.
- Apply no more than 64 fl. oz./A of this fungicide per year.
- Apply early in the crop production cycle to minimize fungal pressure from listed diseases.

## CONTROL OF POWDERY MILDEW ON GERBERA DAISY



2018 - Krasnow, Vero Beach Research Center, Syngenta

## CONTROL OF FUSARIUM WILT IN GARDEN MUMS Disease Severity - 7/30/2019 (2 months after treatment)



Rating Scale: 0 = no disease observed  
1 = 1-10%  
2 = 11-20%, etc.

Treatments applied 5/23/2019 as a drench 100 ml/gal pot  
Plants were inoculated 5/24/2019  
Eight single plant replicates

2019 - Chastagner, Washington State University

Rates listed per 100 gal

To learn more, visit [GreenCastOnline.com/Postiva](https://www.GreenCastOnline.com/Postiva)

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Performance assessments are based upon results or analysis of public information, field observations and/or internal Syngenta evaluations. Trials reflect treatment rates commonly recommended in the marketplace.

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