

Agronomic Program for Garden Mums

A Framework for Success

NANCY REHCIGL
SYNGENTA



syngenta®

Classification: PUBLIC ©2018 Syngenta. **Important: Always read and follow label instructions. Some products may not be registered for sale or use in all states or counties and/or may have state-specific use requirements. Please check with your local extension service to ensure registration and proper use.** The trademarks displayed or otherwise used herein are trademarks of a Syngenta Group Company or respective third party owners.

TM

Controlling Insect and Mite Pests

Spray with Avid 8 floz/100 gal

Mites

Aphids

Leafminer

Thrips



Use Mainspring GNL 8 floz/100 gal
(once foliage has filled out the pot)

Aphids

Leafminer

Thrips

Whitefly

Worms



Syngenta Product Solutions for Key Pests

Target Pest	Syngenta Product Solutions
Aphids	Mainspring® GNL Insecticide, Endeavor® Insecticide, Flagship® Insecticide, Scimitar® Insecticide, Avid® Miticide/Insecticide,
Leaf-feeding Beetles	Mainspring GNL, Flagship, Scimitar
Leaf-feeding Caterpillars	Mainspring GNL, Scimitar
Lacebug	Mainspring GNL, Flagship, Scimitar
Leafminer	Mainspring GNL, Avid, Citation, Flagship
Mites (Two-spotted, Eriophyid, Tarsonemid)	Avid
Soft Scale	Mainspring GNL, Flagship, Scimitar
Thrips	Mainspring GNL, Avid, Flagship, Scimitar
Whiteflies	Mainspring GNL, Avid, Flagship, Endeavor, Scimitar

Fusarium Root & Stem Rot – *Fusarium oxysporum*

- This disease is generally observed later in production (August or September)
- ***Infections begin earlier in production > July***
- Foliage first appears to be lighter in color in a section of the canopy
- Plants appear to have a one-sided wilt, progressing from the bottom up



Products for Controlling Fusarium

FRAC Code	Fungicide Products	Use Rate (per 100 gal)	REI/Label Statement
1	OHP 6672® (<i>Thiophanate methyl</i>)	12 – 16 oz.	12 hr/ caution
12	Medallion® Fungicide (<i>Fludioxonil</i>)	1 – 2 oz.	12 hr/ caution
3	Terraguard® SC Fungicide (<i>Triflumizole</i>)	4 – 8 fl.oz.	12 hr/ caution
11	Empress™ Fungicide (<i>Pyraclostrobin</i>)	2 – 6 fl.oz.	12 hr/ warning
11	Heritage® Fungicide (<i>Azoxystrobin</i>)	1 oz.	12 hr/ caution
11 + 7	Mural™ Fungicide (<i>Azoxystrobin + Solatenol®</i>)	2 – 3 oz. (Drench) 5 – 7 oz (Directed Spray)	12 hr/ caution
11 + 7	Orkestra™ Fungicide (<i>Pyraclostrobin + Fluxapyroxad</i>)	8 -10 fl.oz.	12 hr/ warning
11 + 7	Pageant® (<i>Pyraclostrobin + Boscalid</i>)	12 – 18 oz.	12 hr/ caution

Prior to disease: 21 - 28 day interval

Active Infection : Shorten interval according to product label

Drench Rotation Using FRAC codes: 1 > 12 > 11/11 + 7

Products for Controlling Rust Diseases

FRAC Code	Fungicide Products	Use Rate (per 100 gal)
M	Daconil® Ultrex Fungicide (<i>Chlorothalonil</i>) (<i>prior to bloom</i>)	22 oz.
M	Dithane® 75 DF Fungicide (<i>Mancozeb</i>)	1 -2 lbs.
M + 3	Concert® II Fungicide (<i>Chlorothalonil</i> + <i>Propiconazole</i>) (<i>outdoor use only</i>)	22 – 35 fl.oz.
1	OHP 6672® 50 WP (<i>Thiophanate methyl</i>)	12 – 16 oz.
3	Banner Maxx® Fungicide (<i>Propiconazole</i>) (<i>outdoor use only</i>)	5 – 8 fl.oz.
3	Eagle® 20EW Fungicide (<i>Myclobutanil</i>)	6 – 12 fl.oz.
3	Terraguard® SC Fungicide (<i>Triflumizole</i>)	2 – 8 fl.oz.
11	Heritage® (<i>Azoxystrobin</i>)	2 – 4 oz
11 + 7	Mural™ Fungicide (<i>Azoxystrobin</i> + <i>Solatenol</i> ®)	4 – 7 oz.
11 + 7	Pageant® (<i>Pyraclostrobin</i> + <i>Boscalid</i>)	6 – 12 fl.oz
11 + 7	Orkestra™ Fungicide (<i>Pyraclostrobin</i> + <i>Fluxapyroxad</i>)	6 – 8 fl.oz.

Rotation: M > M + 3 > 11 + 7

Prior to disease: 14 - 21 day rotation
Active Infection : 7 day rotation

Example of Rotations to Control Key Pests & Diseases in Garden Mums

Week	12 - 16 week crop	12 - 16 week crop	Target Pests
1 Transplant			<i>(Listed rates per 100 gal)</i>
2	Endeavor 5 oz.	Endeavor 5 oz.	Aphids , WF
3	Avid 8 floz. (Spray)	Avid 8 floz. (Spray)	Mites , Leafminer, Thrips, WF, Aphids
4	Segway® 3 floz. or Subdue Maxx® 1 floz. + Medallion® 2oz. (Drench)	Segway® 3 floz. or Subdue Maxx 1 floz. + Medallion 2oz. + *Mainspring GNL 8 floz. (Drench)	Pythium, Rhizoctonia, Fusarium *(Mainspring drench provides ~8+ wks protection against Aphids, Leafminer, Thrips, WF, Worms)
5	Avid 8 floz. (Spray)	Avid 8 floz. (Spray)	Mites , Leafminer, Aphids
6	Mainspring GNL 4 floz. (Spray)		Aphids, Leafminer, Thrips, WF, Worms
7	Concert® II 35 floz. (Spray-Outside Production Only)	Concert® II 35 floz. (Spray-Outside Production Only)	Leafspots , Fusarium, Rust , Botrytis (Replace with a copper fungicide or Dithane+Daconil spray for Bacterial LS)
8	Mainspring GNL 4 fl. oz. (Spray)		Aphids, Leafminer, Thrips, WF, Worms
9	Mural or Heritage® (Drench or Directed Spray)	Mural or Heritage (Drench or Directed Spray)	Optional: Late Season Root Rot (Pythium) , Fusarium (apply wk. 8-9)
10	Concert® II 35 floz. (Outside Production Only)	Concert® II 35 floz (Outside Production Only)	Leaf spots , Fusarium, Rust , Botrytis
11			
12	Mainspring GNL 4 floz. + Mural 7 oz. (Heavy Directed Spray)	Mural 7 oz. (Heavy Directed Spray)	Aphids, Thrips, WF, Worms Fusarium, Rust, Botrytis
13 -16 as needed	Avid or *Conserve® Palladium or Mural (Spray)	Avid or *Conserve Palladium or Mural (Spray)	Thrips in Flowers, *Worms Botrytis (In areas prone to rust Mural can be used for additional protection)

Classification: Public. ©2018 Syngenta. Important: Always read and follow label instructions. Some products may not be registered for sale or use in all states or counties and/or may have state-specific use requirements. Please check with your local extension service to ensure registration and proper use. Trademarks are the properties of their respective owners.

syngenta®

Rotation Example for Prevention of Rust Diseases

Week	Fungicide Rotation
1	Subdue 1 fl.oz. + Medallion 2 oz. (drench)
2	*Dithane 75DF 1.5 lb. (or *Mancozeb product) + Daconil Ultrex 1.4l lb. (spray)
3	Concert II 22 - 35 fl. oz. (spray)
4	Dithane 75DF 1.5 lb. + Daconil Ultrex 1.4 lb. (spray)
5	Mural 7 oz. (spray)
6	Dithane 75DF 1.5 lb. + Daconil Ultrex 1.4 lb. (spray)
7	Mural 7 oz. (spray)
8	Concert II 22 – 35 fl. oz. (spray)
9	Dithane 75 DF 1.5 lb. + Daconil Ultrex 1.4 lb. (spray)
10	Concert II 22 - 35 fl. oz. (spray)
11	
12	Mural 7 oz. (spray)
13	
14	Mural 7 oz. (spray)



Program also protects against:

- Leaf spot diseases
- Fusarium
- Botrytis
- *Bacterial Leaf spot
(Dithane+ Daconil)

***Do not use Concert II or Banner Maxx in a greenhouse (for outdoor production only)
Do not use Dithane, Daconil® or Concert II once color is showing.***

Mural

Benefits of Azoxystrobin - The best performing strobilurin

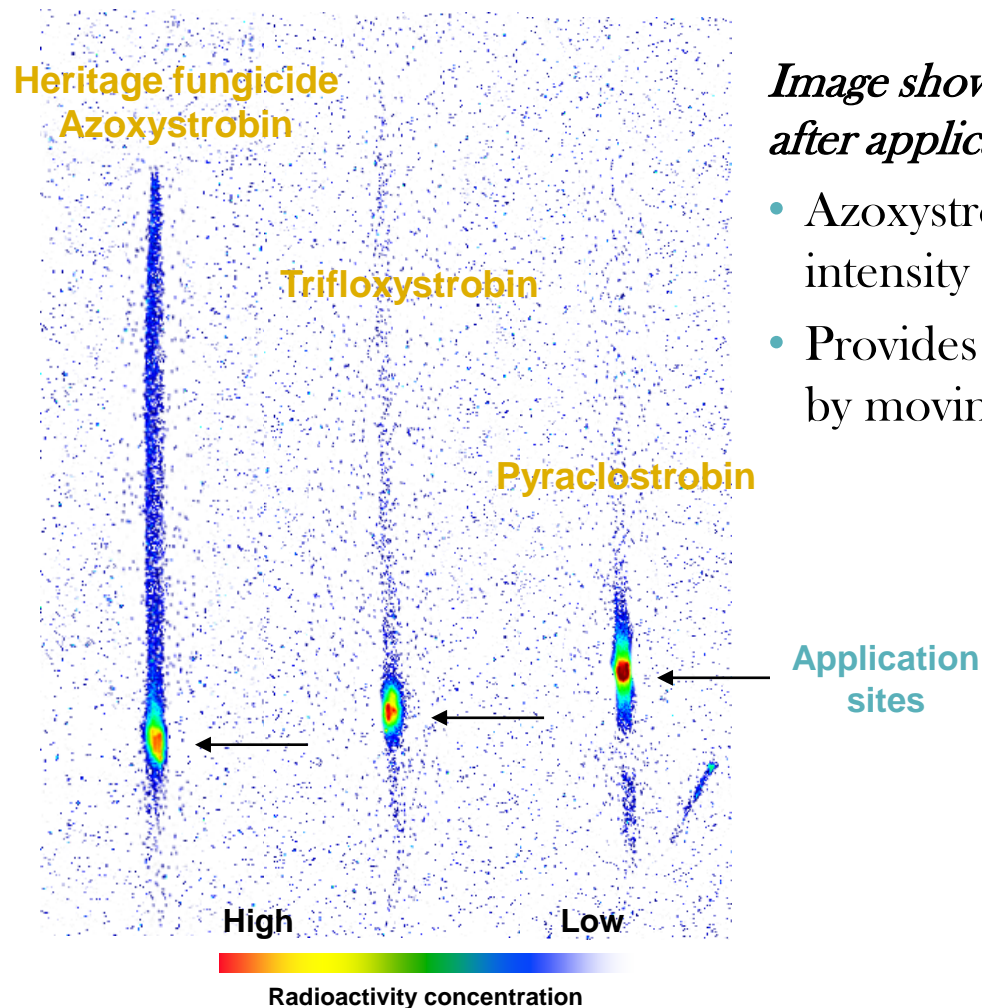
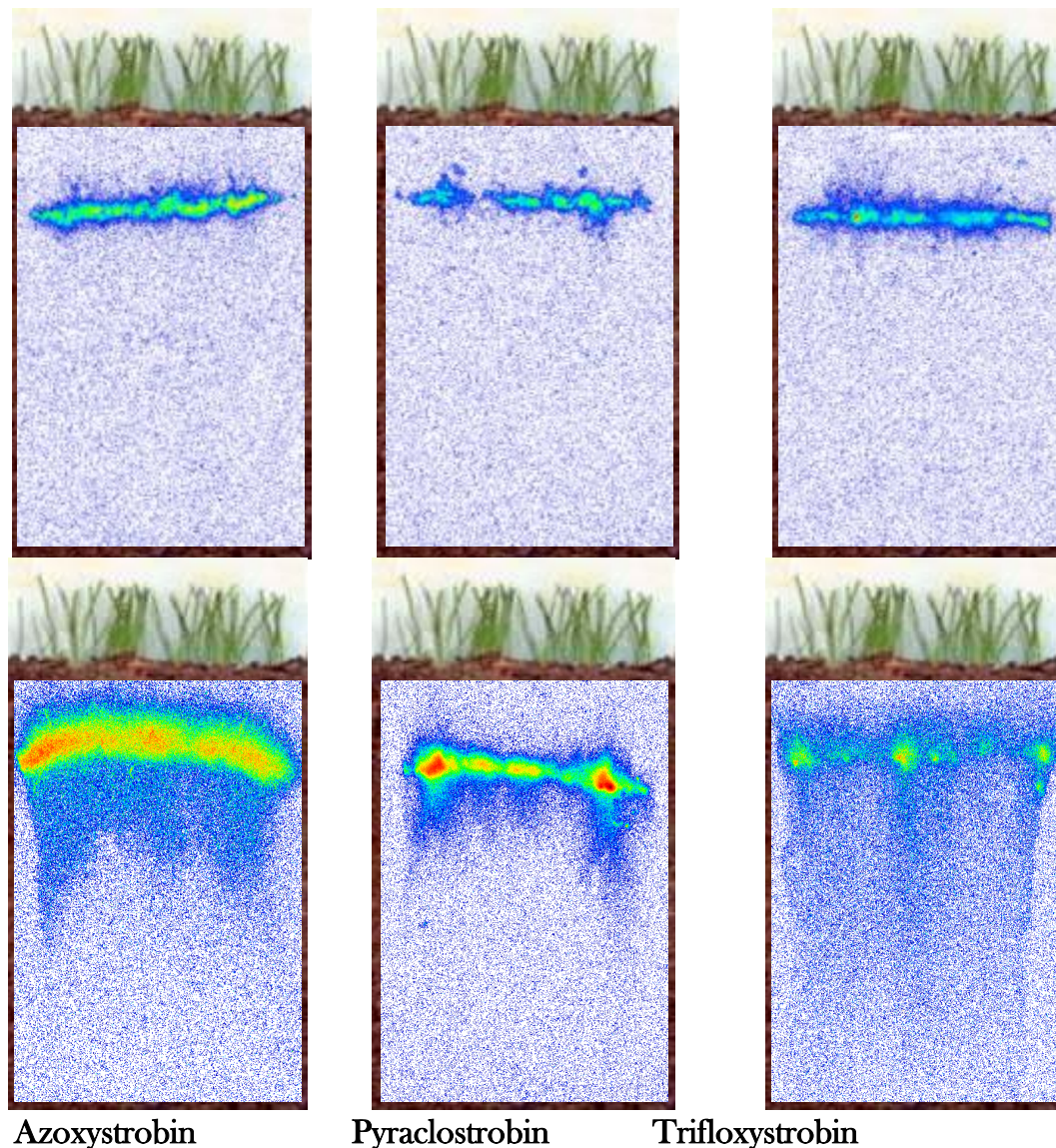


Image shows systemic movement measured one day after application to base of leaf

- Azoxystrobin moves more and with added intensity compared to other strobilurins.
- Provides superior coverage and disease control by moving upward and throughout the leaf.

More Azoxystrobin in The Right Place, For Longer!

- Azoxystrobin moves upward with root uptake
- Pyraclostrobin does not move
- Trifloxystrobin minimal movement and appreciable leaching



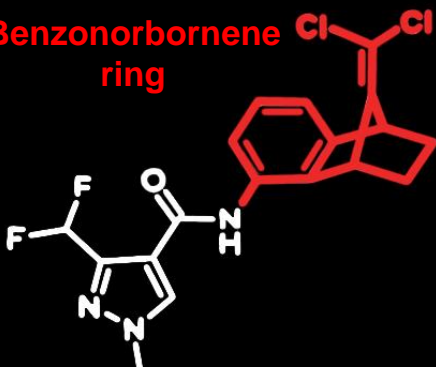
Radioactivity concentration



What makes Mural's SDHI Unique?

Solatenol's unique chemical structure gives it two benefits over other SDHIs

Benzonorbornene
ring

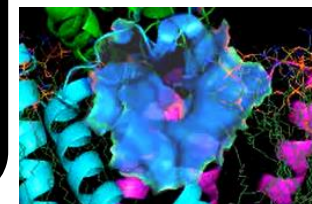


Solatenol molecule

Strongly binds to the waxy layer of the leaf, preventing the plant from metabolizing Solatenol, leading to longer residual



Stronger affinity to fungal pathogen receptor site, translating to higher potency and disease control



Legal Disclaimer

Photos are either the property of Syngenta or used under agreement.

©2018 Syngenta. Important: Always read and follow label instructions. Some products may not be registered for sale or use in all states or counties. Please check with your local extension service to ensure registration status. Scimitar GC is a restricted use pesticide. The trademarks displayed or otherwise used herein are trademarks of a Syngenta Group Company or third parties.