



**syngenta<sup>®</sup>**

# Portfolio For Beautiful Plants

*Comprehensive. Consistent. Complete.*

TM

 **Harrell's**  
*Growing a Better World<sup>®</sup>*

The Syngenta portfolio of products is designed to offer growers efficient, cost-effective protection throughout plant production while enabling plants to reach their highest quality. Syngenta provides control-solutions for insect, disease and shelf-life management for professional ornamental growers to help keep plants beautiful and profits strong.

## FUNGICIDES



### Premier Fungicide for Superior Control

Banner Maxx® fungicide provides broad-spectrum control of foliar diseases on ornamentals grown in the landscape and outdoor nurseries.

- Provides effective, systemic control of powdery mildew, rust and many leaf-spotting diseases.
- Low odor, highly compatible and easy-mixing formulation with systemic action delivers continual high performance.
- Effective on diseases such as powdery mildew, rust and other leaf spots.



### Industry-Leading Contact Fungicide Formula

Daconil® fungicide is a leading broad-spectrum contact fungicide with proven control of all major ornamental diseases.

- Available as water-dispersible granule, flowable and flowable-with-zinc formulations.
- Premium formulation offers fast, consistent protection.
- Built-in surfactant provides rainfastness for superior staying power to provide extended coverage and disease control.



### The Core Component in Successful Disease Management Programs

Heritage® fungicide maximizes control from root to leaf on the toughest diseases with both foliar and drench applications.

- Broad-spectrum activity on all four major classes of fungi.
- A systemic strobilurin fungicide with a novel mode of action that can deliver up to 28 days of protection.
- Unique chemical structure provides control at every stage of the pathogen's life cycle.



### An Easier Way to Protect Young Roots and Stems from Damaging Diseases

Hurricane® WDG fungicide delivers effective, easy control of most major root and stem diseases.

- Contains two active ingredients for contact and systemic disease protection.
- Highly effective against *Pythium*, *Phytophthora* and *Rhizoctonia* for cost-effective, broad-spectrum root rot control.
- Water dispersible granule formulation is easy to measure, easy to mix (no bag) and easy to apply.



### The Standard for *Rhizoctonia* Control Both Indoors and Out

Medallion® fungicide provides powerful control of *Rhizoctonia* and a broad spectrum of root and foliar diseases with low usage rates.

- Contact protectant with a unique mode of action that inhibits spore germination.
- Protects the root and leaf surfaces to provide extended disease control with minimal foliar residue.
- Can be applied as a foliar spray, pre-potting growing media mix or growing media drench.



### Fast, Powerful Fungicide for Ornamentals

Micora™ fungicide delivers outstanding protection and strong control against diseases caused by downy mildew fungi and *Phytophthora spp.*

- LOK + FLO™ technology locks tightly to the plant surface and creates a barrier of protection, which is rainfast upon drying. Micora also flows into the plant to provide protection on both upper and lower leaf surfaces.
- Four-hour restricted entry interval (REI) after application.
- Compatibility with beneficial insects makes it an ideal partner for integrated crop management (ICM) programs.



### In a Class of Its Own for Ornamental Disease Protection

Palladium™ fungicide combines two active ingredients with contact and systemic activity, to provide control on a wide range of foliar and stem diseases found in nursery and greenhouse production.

- Excellent tool for resistance management and rotational programs.
- Provides preventative and curative disease control for 7–14 days.
- Top choice for certain foliar diseases, including *Botrytis*, in bedding plants, perennials, specialty annuals, foliage plants and woody ornamentals.



### The Industry Standard for Root and Stem Rot Disease Control

Subdue Maxx® fungicide offers superior disease control with the flexibility to apply at any time, helping to enhance productivity and profit.

- Long-lasting, cost-efficient control of diseases caused by *Pythium*, *Phytophthora* and downy mildew fungi.
- Delivers systemic action and contact activity, helping eliminate disease both inside the plant and on the plant surface.
- Micro-emulsion formulation for ease of mixing, tankmix stability and plant safety.

## PLANT GROWTH REGULATOR



### When Growers Think Plant Growth Regulator, They Think Bonzi

Bonzi® plant growth regulator, the industry standard, consistently keeps plants uniformly compact, hardy and beautiful.

- Reliable production of a consistent formulation means growers know what they're getting in every jug to reduce the chance for plant damage.
- Well-known and proven product helps growers minimize their risk, especially on high-value crops.
- Can be applied as a spray, drench, or pre-plant bulb soak on a wide variety of bedding plants, bulb crops, annual and perennial plants as well as herbaceous and woody ornamentals.

## INSECTICIDES



**Avid<sup>®</sup> 015EC**  
Miticide/insecticide

### A Staple of Profitable Ornamental Production

Avid<sup>®</sup> miticide/insecticide is widely used because of its proven, broad-spectrum control of mites and leafminers as well as suppression of aphids, thrips and whiteflies.

- A standard treatment for successful production of bedding plants and woody ornamentals in greenhouses, nurseries, shade houses and outdoor field production.
- Patented purification process filters out the less-active strains and provides the most potent active ingredient for the highest level of pest control.
- Translaminar activity allows the active ingredient to flow throughout the plant tissue to quickly stop insect feeding.



**Award<sup>®</sup>**  
Fire ant bait

### Effective, Long-Term Control of Fire Ants and Big-Headed Ants

Award<sup>®</sup> fire ant bait provides long-term control of fire ants by targeting the queen, not just the foraging ants, with a fall and spring application program.

- An average control period of 3–4 months requires fewer applications and less time.
- Versatile to use on many sites, including ornamentals, nurseries, turf, lawns and landscapes.
- Effective fire ant bait at very low use rates.



**Citation<sup>®</sup>**  
Insect growth regulator

### Delivers Targeted Control of Leafminers, Fungus Gnats and Shoreflies

Citation<sup>®</sup> insect growth regulator is highly effective against major dipterous pests in ornamentals.

- Provides control and reduces adult populations by inhibiting the development of the larval stage.
- Highly compatible with integrated crop management programs, including rotations with Avid and Flagship<sup>®</sup> insecticides, as well as beneficial insects and nematodes.
- Can be applied as a spray or drench in indoor or outdoor production and on interiorscapes.



**Endeavor<sup>®</sup>**  
Insecticide

### Delivers a Precision Strike Against Aphids and Whiteflies

Endeavor<sup>®</sup> insecticide helps control aphids and whiteflies with a unique chemistry and mode of action.

- Highly compatible with beneficial insects and integrated crop management programs.
- After ingestion, insects quickly stop feeding, reducing the possibility of virus transmission.
- Translaminar and systemic movement quickly protect the plant and provide residual control.



**Flagship<sup>®</sup> 25WG**  
Insecticide



**Flagship<sup>®</sup> 0.22G**  
Insecticide

### A Solid Foundation for Insect Control

Flagship 25WG and Flagship 0.22G insecticides offer control across a broad-spectrum of insect pests including aphids, whiteflies, leafminers and thrips.

- Patented Thiamethoxam Vigor Effect produces more vigorous and marketable plants, especially under stressful conditions.
- Systemic and contact activity on a wide variety of foliar and soil pests at immature and adult stages.
- Can be successfully incorporated with biological control or rotation programs.



**Scimitar<sup>®</sup> GC**  
Insecticide

### Long-Term Protection Without the Long Wait

Scimitar<sup>®</sup> GC insecticide is a pyrethroid that provides fast and broad-spectrum pest control at a low use rate.

- Water-based, microencapsulated formulation preserves the active ingredient for extended control.
- Fast-acting formulation stops plant damage quickly to provide enhanced plant quality and marketability.
- Provides excellent activity on lepidopteran pests and many others at a low use rate.

## HERBICIDES



**Barricade<sup>®</sup>**  
Herbicide

### Premier Pre-Emergence Herbicide

Barricade<sup>®</sup> herbicide delivers low-rate, season-long control of more than 30 weeds that affect ornamentals.

- Long-lasting herbicide provides control of grassy and broadleaf weeds with one application.
- Can be used over the top of existing plants; controls weeds by preventing growth and development of newly germinated weeds.
- Very low solubility keeps Barricade from moving, minimizing any effect on plant roots.



**Departure<sup>™</sup>**  
Herbicide

### A Concentrated Glyphosate, Providing More Active Ingredient and Less Carrier

Departure<sup>™</sup> herbicide is a highly concentrated, liquid formulation of glyphosate for systemic, non-selective weed control.

- Convenient and reliable weed control of more than 170 emerged grasses and broadleaf weeds.
- Treats approximately 40 percent more area compared to most common glyphosate products.
- Low foam, odor and viscosity allows for easy handling and mixing.



**Fusilade<sup>®</sup> II**  
Herbicide

### Selective Grass Herbicide

Fusilade<sup>®</sup> II herbicide controls a wide variety of grass weeds without damaging valuable ornamental plantings.

- Selective herbicide for control of annual and perennial grass weeds over the top of ornamental plants to eliminate costly hand-weeding.
- Labeled for use in landscaped areas, nurseries, flower beds, groundcovers, interiorscapes, parks, commercial and residential areas.
- Rainfast in one hour, and the active ingredient moves quickly to all growing points.



**Pennant Magnum<sup>®</sup>**  
Herbicide

### Superior Weed Control for Ornamentals

Pennant Magnum<sup>®</sup> herbicide can be used on a range of ornamental plants for pre-emergence control of grass and broadleaf weeds.

- Pre-emergent herbicide offers long-lasting control of yellow nutsedge, annual grasses and broadleaf weeds.
- Broad-spectrum weed control that works well in a variety of settings.
- Easy-to-use liquid formulation allows it to be used alone or in approved tankmix combinations.



**Princep<sup>®</sup> Liquid**  
Herbicide

### Selective Weed Control for Woody Plants

Princep<sup>®</sup> Liquid herbicide is a pre-emergence herbicide that controls a wide variety of annual broadleaf and grass weeds in containers, field

production and landscape plantings.

- Provides protection against a broad range of weeds including crabgrass, pigweeds, chickweed and groundsel.
- Works effectively in multiple areas.
- Liquid formulation allows for easy handling and mixing.



**Reward<sup>®</sup>**  
Landscape and aquatic herbicide

### Fast and Precise Weed Control

Reward<sup>®</sup> herbicide is a non-selective landscape and aquatic herbicide.

- Fast-acting, contact herbicide starts working within hours of application.
- Economical product, ideal for greenhouse and nursery use.
- Works well as a trim and edge tool.

# PRODUCING BEAUTIFUL PLANTS

INSECTICIDES						INSECT CONTROL			
	Active Ingredient	Formulations	REI (hours)	Use Rates	Use Sites	Ants	Aphids	Thrips	Whiteflies
<b>Avid®</b>	Abamectin	EC	12	4 – 8 fl oz/100 gal 8 – 16 fl oz/A	GH, OP, L		Suppression	Suppression	Suppression
<b>Award®</b>	Fenoxycarb	Bait	12	1 – 1.5 lb/A	OP, L	Fire ants, big-headed ants			
<b>Citation®</b>	Cyromazine	WP	12	2.66 oz/100 gal	GH, OP, L, I				
<b>Endeavor®</b>	Pymetrozine	WDG	12	2.5 – 5.0 oz/100 gal	GH, OP, L, I				
<b>Flagship®</b>	Thiamethoxam	WDG G	12	2 – 8.5 oz/100 gal; 40 – 120 lb/A	GH, OP, I			Foliar Feeding	
<b>Scimitar® GC</b>	Lambda-Cyhalothrin	CS	24	1.5 – 5.0 fl oz/100 gal	GH, OP, L				
FUNGICIDES						DISEASE CONTROL			
	Active Ingredient	Formulations	REI (hours)	Use Rates	Use Sites	Pythium	Phytophthora	Fusarium	Rhizoctonia
<b>Banner Maxx® II</b>	Propiconazole	MEC	12	2 – 24 fl oz/100 gal	OP, L				
<b>Concert® II</b>	Propiconazole + Chlorothalonil	SE	12	9 – 69 fl oz/100 gal	OP, L				
<b>Daconil ULTREX®</b>	Chlorothalonil	WDG	12	1.4 lb/100 gal	GH, OP, CL		Foliar & Stem		
<b>Daconil Weatherstik®</b>	Chlorothalonil	SC	12	1 – 1 3/8 pt/100 gal	GH, OP, CL		Foliar & Stem		
<b>Daconil Zn®</b>	Chlorothalonil	SC	12	1.5 – 2 pts/100 gal	GH, OP, CL		Foliar & Stem		
<b>Heritage®</b>	Azoxystrobin	WDG	4	Foliar: 1 – 8 oz/100 gal Drench: 0.2 – 0.9 oz/100 gal	GH, OP, L		Foliar & Stem		
<b>Hurricane® WDG</b>	Fludioxonil Mefenoxam	WDG	0†/48††	0.75 – 1.5 oz/100 gal	GH, OP, L				
<b>Medallion®</b>	Fludioxonil	WP	12	1 – 4 oz/100 gal	GH, OP, L, I				
<b>Micora™</b>	Mandipropamid	SC	4	4 – 8 fl oz/100 gal	GH, OP				
<b>Palladium™</b>	Fludioxonil + Cyprodinil	WDG	12	2 – 6 oz/100 gal	GH, OP, CL				
<b>Subdue Maxx®</b>	Mefenoxam	MEC	0†/48††	0.13 – 2 fl oz/100 gal	GH, OP, L				
<b>Subdue® GR</b>	Mefenoxam	GR	0†/48††	GR: 6 – 125 oz/1000 sq ft	GH, OP, L, I				
HERBICIDES						WEED CONTROL			
	Active Ingredient	Formulations	REI (hours)	Use Rates Per Acre	Use Sites	Crabgrass	Foxtails	Goosegrass	
<b>Barricade® 65WG</b>	Prodiamine	WDG	12	1 – 2.3 lb	OP, L				
<b>Barricade 4FL</b>	Prodiamine	SC	12	21 – 48 fl oz/A	OP, L				
<b>Fusilade® II</b>	Fluazifop-P-butyl	EC	12	16 – 24 oz/A	GH, OP, L, I				
<b>Pennant Magnum®</b>	S-Metolachlor	EC	24	1.3 – 2.6 pt/A	OP, L				
<b>Princep® Liquid</b>	Simazine	SC	12	2 – 3 qt/A	OP				
<b>Reward®</b>	Diquat dibromide	SL	24	1 – 2 qts/100 gal	GH, OP, L	Non-selective weed control for use in and around ornamental production facilities			
<b>Departure™</b>	Glyphosate	SL	12	0.4 – 1.5 % V/V	GH*, OP, L	Non-selective weed control – *Do not use in and around Greenhouses and Shade Structures that contain plant material			
PLANT GROWTH REGULATOR						CROP USES			
	Active Ingredient	Formulations	REI (hours)	Use Rates	Use Sites	Florist Azalea	Bedding Plants	Woody Plants	
<b>Bonzi®</b>	Pacllobutrazol	SC	12	Various	GH, OP**				

SC = suspension concentrate, EC = emulsifiable concentrate, WP = wettable powder, WDG = water-dispersible granule, G = granular, MEC = micro-emulsion concentrate, CS = capsule suspension, SE = suspo-emulsion, SL = soluble liquid

GH = Greenhouse, I = Interiorscapes, OP = Outdoor Nursery Production, L = Landscape Ornamentals, CL = Commercial Landscapes Only

The Syngenta ornamental portfolio provides consistently superior control from seedling to market. This compilation of powerful products is designed to offer growers efficient, cost-effective protection throughout production and ensure plants grow to be only of the highest quality. Because after all, beautifully strong plants keep profits strong.

INSECT CONTROL							APPLICATION METHODS		
Fungus Gnats	Shore Flies	Scales	Dipteran Leafminers	Mealybugs	Lace Bug & Leaf Beetles	Mites	Foliar	Drench	Granule
		Soft Scale							
		Crawlers	Adults						
DISEASE CONTROL							APPLICATION METHODS		
Cylindrocladium	Anthracnose	Botrytis	Leafspots	Downy Mildew	Powdery Mildew	Rust	Foliar	Drench	Granule
WEED CONTROL							APPLICATION METHODS		
<i>Poa annua</i>	Yellow Nutsedge	Oxalis	Chickweed	Pigweed	Florida Pusley	Prostrate Spurge	Foliar	Drench	Granule
CROP USES							APPLICATION METHODS		
Bulb Crops	Chrysanthemums	Flowering/Foliage Geraniums	Poinsettia	Hibiscus	Foliar	Drench	Granule		

\*\*For Plants in Containers Only. †Exception – when drenching or soil incorporated, see label. ††When applying by foliar spray

**Scimitar® GC is a Restricted Use Pesticide**



From *cutting-edge research and development* to *convenient packaging and industry-leading technical support*, Syngenta delivers the solutions you need for your season.



For more information and product resources, please visit [www.greencastonline.com](http://www.greencastonline.com) or call **1-866-SYNGENTA (796-4368)**.



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