



WE'VE
GOT YOU
COVERED

syngenta®

At Syngenta, we are committed to collaborating with growers to solve problems. We recognize the complexity of growing ornamentals and strive to work together to grow our understanding so we can continually deliver plant protection solutions with an impeccable attention to detail that highlights the beauty of plants. As your trusted partner, we've got you covered.

Fungicides



Premier Fungicide for Superior Control

Banner Maxx® II 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.
- Delivers continual high performance at low use rates.



A Versatile Fungicide for Outdoor Applications

Concert® II fungicide helps prevent many key ornamental diseases in nurseries and landscapes.

- Two modes of action with contact and systemic activity provide effective resistance management.
- Preventive control of leaf spot, powdery mildew and rust diseases.
- Formulated to be rainfast and provide extended protection to plants in outdoor environments.



Industry-Leading Contact Fungicide Formula

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

- Available in 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 foliar and drench applications.

- Broad-spectrum activity on all four major classes of fungi with a four-hour restricted-entry interval (REI).
- A systemic strobilurin fungicide with a novel mode of action that can deliver up to 28 days of protection for ornamental crops and certain vegetable plants, herbs and non-bearing fruit and nuts.
- Unique chemical structure provides control at every stage of the pathogen's life cycle.



With Medallion WDG Fungicide, You Can Have It All

Medallion® WDG fungicide is easy-to-use and provides powerful control of key foliar and stem rot diseases such as *Alternaria*, *Fusarium*, *Myrothecium*, *Rhizoctonia* and *Thielaviopsis* at low use rates.

- User-friendly, water-dispersible granule formulation makes it easier to mix, measure, store and use.
- Labeled for use on corm and bulb dips.
- Only fungicide in its chemical class so it is ideal for integrated crop management (ICM) and resistance management programs.



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 that is rainfast upon drying. Micora flows into the plant to protect upper and lower leaf surfaces.
- Four-hour REI after application.
- Compatibility with beneficial insects makes it an ideal partner for ICM programs.



One Versatile Solution for Broad-Spectrum Disease Control

Mural® fungicide protects ornamental and vegetable plants, trees and shrubs in greenhouses and nurseries from the widest range of root and foliar diseases at low use rates.

- Prevents and controls more than 50 ornamental diseases, including Botrytis, leaf spots and powdery mildew, and soilborne diseases like *Rhizoctonia* and *Fusarium*.
- Powered by Heritage fungicide and an advanced generation SDHI (succinate dehydrogenase inhibitor) with translaminar and systemic activity.
- Built with an enhanced formulation for efficient mixing.
- Offers plant health benefits, like enhanced root density when applied at low use rates during propagation.



Two Unique Modes of Action for Ornamental Disease Control

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.

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



Essential Partner in the Fight Against Downy Mildew and Phytophthora Diseases

Segovis® fungicide has a unique active ingredient with strong systemic movement that makes it an essential addition to rotation programs.

- Long-lasting control of diseases caused by downy mildew and *Phytophthora spp.* at low use rates.
- Can be applied to ornamental crops, trees and shrubs in greenhouses, nurseries and commercial landscapes.
- Novel mode of action helps manage resistance concerns and strengthens fungicide rotation programs.
- Has a four-hour REI and no signal word.



Superior Control of Pythium, Phytophthora and Downy Mildew

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 and contact activity, helping eliminate disease inside the plant and on the surface.
- Micro-emulsion formulation for easy mixing, tank-mix stability and plant safety.
- Labeled for use on certain vegetable plants, herbs and non-bearing fruit and nuts.



Subdue® GR fungicide provides superior protection as a granular formulation for broadcast and soil incorporation treatments.

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, 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



Long-lasting Control of Japanese Beetles and Lepidopteran Pests

Acelepryn® insecticide protects ornamental plants, trees and shrubs from key leaf-feeding insects in nurseries, landscapes and greenhouses.

- One foliar application provides up to four weeks of extended residual control.
- Registered as Reduced Risk¹ with a four-hour REI, no signal word and minimal personal protective equipment required.
- Can be applied as a spray, drench, bark or systemic soil treatment.
- Diamide class of chemistry offers an alternative to neonicotinoids and pyrethroids.
- No known adverse effects on beneficial and non-target organisms, such as bees and biological control agents.²



Quick, Effective Control of Imported Fire Ants

Advion® fire ant bait controls imported fire ant in nurseries, sod farms and landscapes.

- Stops worker ants from foraging within 24 hours of application.
- Achieves full colony control, including the queen, within 72 hours.
- Can be applied as a mound treatment or broadcast application.
- Only fire ant bait currently registered under the EPA Reduced Risk Program.¹



A Staple of Profitable Ornamental Production

Avid® 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.
- Proven 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 through the plant to quickly stop feeding.



Delivers Targeted Control of Leafminers, Fungus Gnats and Shoreflies

Citation® insect growth regulator is highly effective against major dipterous pests in ornamentals and certain vegetable plants.

- Provides control and reduces adult populations by inhibiting the development of the larval stage.
- Highly compatible with ICM programs, including rotations with Avid and Mainspring® GNL insecticides, as well as beneficial insects and nematodes.
- Can be applied as a spray or drench in indoor or outdoor production and on interiorscapes.



Delivers a Precision Strike Against Aphids and Whiteflies

Endeavor® 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.
- Can be applied to vegetables grown for transplant, including tomatoes, cucurbits, eggplant, peppers and leafy vegetables.



A Solid Foundation for Insect Control

Flagship® 25WG insecticide offers control across a broad spectrum of insect pests including aphids, whiteflies, leafminers and thrips.

- Patented Thiamethoxam Vigor Effect produces more vigorous and marketable plants .
- 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.



Novel Active Ingredient for Systemic Control of Key Ornamental Pests

Mainspring GNL insecticide is in a unique chemistry class, making it a powerful resistance management tool while offering an alternative to neonicotinoid chemistries.

- Broad-spectrum, systemic activity controls key chewing and sucking pests, including thrips, whiteflies, aphids, caterpillars, leafminers and leaf-feeding beetles.
- Systemic activity provides extended protection to save time and labor on repeated applications.
- Compatible with many beneficial insects and mites for use in ICM programs.
- Can be applied as a spray or drench in greenhouses, nurseries and commercial and residential landscapes.

¹A reduced-risk product is defined as one which "may reasonably be expected to accomplish one or more of the following: (1) reduces pesticide risks to human health; (2) reduces pesticide risks to non-target organisms; (3) reduces the potential for contamination of valued, environmental resources, or (4) broadens adoption of IPM or makes it more effective. Advion Fire Ant Bait and Acelepryn insecticide qualify under one or more of the above criteria.

²Jonathan L. Larson, Carl T. Redmond and Daniel A. Potter, SCI. September 2011.



Long-Term Protection Without the Long Wait

Scimitar[®] 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



Premier Pre-Emergence Herbicide

Barricade[®] 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.



Selective Grass Herbicide

Fusilade[®] 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.



Superior Weed Control for Ornamentals

Pennant Magnum[®] 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 tank-mix combinations.



Selective Weed Control for Woody Plants

Princep[®] 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.



Fast and Precise Weed Control

Reward[®] 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		
	Mode of Action Group	Active Ingredient	Formulations	REI (hours)	Use Rates	Use Sites	Ants	Aphids	Thrips
Acelepryn®	28	Chlorantranilprole	SC	4	See product label	GH, ONP, RL, CL, I, SP		Soil treatment	
Advion®	22	Indoxacarb	Bait	4	1.5 lbs/A	ONP, RL, CL	Fire ants		
Avid®	6	Abamectin	EC	12	4 – 8 fl oz/100 gal 8 – 16 fl oz/A	GH, ONP, RL, CL		Suppression	Suppression
Citation®	17	Cyromazine	WP	12	2.66 oz/100 gal	GH, ONP, RL, I, CL			
Endeavor®	9B	Pymetrozine	WDG	12	2.5 – 5 oz/100 gal	GH, ONP, RL, I, CL, D			
Flagship®	4	Thiamethoxam	WDG	12	2 – 8.5 oz/100 gal 40 – 120 lb/A	GH, ONP, I			Foliar feeding
Mainspring® GNL	28	Cyantranilprole	SC	4	Foliar: 2 – 8 fl oz/100 gal Drench: 8 – 12 fl oz/100 gal	GH, ONP, RL, I, CL			Foliar feeding
Scimitar® GC	3	Lambda-Cyhalothrin	CS	24	1.5 – 5 fl oz/100 gal	GH, ONP, RL, CL, SP			
FUNGICIDES							DISEASE CONTROL		
	Mode of Action Group	Active Ingredient	Formulations	REI (hours)	Use Rates	Use Sites	Pythium	Phytophthora	Fusarium
Banner Maxx® II	3	Propiconazole	MEC	12	2 – 24 fl oz/100 gal	ONP, RL, CL, SP			
Concert® II	3 and M5	Propiconazole + Chlorothalonil	SE	12	9 – 69 fl oz/100 gal	ONP, RL, CL, SP			
Daconil Ultrex®	M5	Chlorothalonil	WDG	12	1.4 lb/100 gal	GH, ONP, CL, RL, SP		Foliar & Stem	
Daconil Weatherstik®	M5	Chlorothalonil	SC	12	1 – 1 3/8 pt/100 gal	GH, ONP, CL, RL, SP		Foliar & Stem	
Daconil Zn®	M5	Chlorothalonil	SC	12	1.5 – 2 pts/100 gal	GH, ONP, CL, RL, SP		Foliar & Stem	
Heritage®	11	Azoxystrobin	WDG	4	Foliar: 1 – 8 oz/100 gal Drench: 0.2 – 1 oz/100 gal	GH, ONP, CL, RL, SP	Suppression	Foliar & Stem	
Medallion® WDG	12	Fludioxonil	WDG	12	Foliar: 1 – 4 oz/100 gal Drench: 1 – 2 oz/100 gal	GH, ONP, CL, RL, I			
Micora®	40	Mandipropamid	SC	4	4 – 8 fl oz/100 gal	GH, ONP		Foliar, Stem & Root	
Mural®	7 and 11	Solatenol® + Azoxystrobin	WDG	12	Foliar: 4 – 7 oz/100 gal Drench: 2 – 3 oz/100 gal	GH, ONP, CL	Suppression		
Palladium®	9 and 12	Fludioxonil + Cyprodinil	WDG	12	2 – 6 oz/100 gal	GH, ONP, CL			Blight & Stem Rot
Segovis®	49	Oxathiapiprolin	SC	4	Foliar: 0.6 – 3.2 fl oz/100 gal Drench: Container-grown: 0.65 – 3.2 fl oz/100 gal	GH, ONP, CL			
Subdue Maxx®	4	Mefenoxam	MEC	0*/48**	Foliar: 0.5 – 2 fl oz/100 gal Drench: 0.125 – 2 fl oz/100 gal	GH, ONP, CL, RL			
Subdue® GR	4	Mefenoxam	G	0*/48**	GR: 6 – 125 oz/1,000 sq ft	GH, ONP, CL, RL, I			
HERBICIDES							WEED CONTROL		
	Mode of Action Group	Active Ingredient	Formulations	REI (hours)	Use Rates	Use Sites	Crabgrass	Foxtails	
Barricade® 65WG	3	Proflaminate	WDG	12	1 – 2.3 lb	ONP, RL, CL			
Barricade 4FL	3	Proflaminate	SC	12	21 – 48 fl oz/A	ONP, RL, CL			
Fusilade® II	1	Fluazifop-P-butyl	EC	12	16 – 24 oz/A	GH, ONP, CL, RL, I			
Pennant Magnum®	15	S-Metolachlor	EC	24	1.3 – 2.6 pt/A	ONP, RL, CL			
Princep® Liquid	5	Simazine	SL	12	2 – 3 qt/A	ONP			
Reward®	22	Diquat dibromide	SL	24	1 – 2 qts/100 gal	GH, ONP, RL, CL	Non-selective weed control for use in and around ornamental production facilities		
PLANT GROWTH REGULATOR							CROP USES		
	Mode of Action Group	Active Ingredient	Formulations	REI (hours)	Use Rates	Use Sites	Florist Azalea	Bedding Plants	
Bonzi®	1	Pacllobutrazol	SC	12	Various	GH, ONP†			

Formulations: CS = Capsule Suspension, EC = Emulsifiable Concentrate, G = Granular, MEC = Micro-emulsion Concentrate, SC = Suspension Concentrate, SE = Suspo-emulsion, SG = Soluble Granules, SL = Soluble Liquid, WDG = Water-dispersible Granule, WP = Wettable Powder

Use Sites: CL = Commercial Landscapes Only, GH = Greenhouse, I = Interiorscapes, ONP = Outdoor Nursery Production, RL = Residential Landscapes, SP = Sod Production

*Exception – when drenching or soil incorporated, see label. **When applying by foliar spray. †For plants in containers 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
Whiteflies	Fungus Gnats	Shore Flies	Scales	Caterpillars/ Worms	Dipteran Leafminers	Mealybugs	Grubs & Adult Beetles	Lace Bugs & Leaf Beetles	Mites	
			Soft scale							F, SD, BT, SI
										Bait
Suppression										F
										F, SD, C, LV
										F, D
			Soft scale							F, SD, SI, C, LV
<i>Bemisia spp.</i>			Soft scale							F, SD, BT, SI, C
			Crawlers		Adults					F, SD (fire ants), C
DISEASE CONTROL										APPLICATION METHODS
Rhizoctonia	Cylindrocladium	Anthracnose	Botrytis	Leaf Spots	Downy Mildew	Powdery Mildew	Rust			
										F
Web blight										F
										F, C
										F, C
										F, C
										F, SD, C
										F, SD, SI, C
										F, SD, C
										F, SD, C
										F, LV
										F, SD, C
										F, SD, SI, C
										SI (Granule)
WEED CONTROL										APPLICATION METHODS
Goosegrass	Poa annua	Yellow Nutsedge	Oxalis	Chickweed	Pigweed	Florida Pusley	Prostrate Spurge			
										F, SI
										F, SI
										F
										F, SI
										F, SI
Non-selective weed control for use in and around ornamental production facilities										F
CROP USES										APPLICATION METHODS
Woody Plants	Bulb Crops	Chrysanthemums	Flowering/Foliage Geraniums	Poinsettia	Hibiscus					
										F, SD, C

Application Methods: F = Foliar, SD = Soil Drench, BT = Bark Treatment, SI = Soil/Media Incorporation, C = Chemigation, LV = Low Volume

www.GreenCastOnline.com/Ornamentals



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