ALWAYS IN SEASON
Syngenta is committed to partnering with nursery growers by providing dependable solutions for outdoor disease, weed and insect control. The following products are labeled for nursery use and provide the reliable protection you’ve come to expect from Syngenta. Our broad portfolio of offerings is always in season to keep your plants protected.
FUNGICIDES

Premier Fungicide for Preventive Disease Control
Banner Maxx® II fungicide provides broad-spectrum control of common foliar diseases in nursery ornamentals.
- Controls powdery mildew, rust and fungal leaf-spotting diseases with a low odor, highly compatible, easy-mixing formulation.
- Unique formulation and fine particle size allow for excellent coverage and activity on the plant.
- Systemic activity delivers high performance and up to 28 days of residual control.

A Versatile Fungicide for Outdoor Applications
Concert® II fungicide is a convenient pre-mix of propiconazole and chlorothalonil that delivers solid, preventive control of rust, powdery mildew and leaf spots.
- Dual-action product combines contact and systemic fungicides, making it an important rotation product for general spray programs.
- Very cost effective as it provides up to four weeks of control of some diseases.
- With its patented SuperWeatherStick® technology, Concert II adheres tightly to the leaf surface, sticking and staying where sprayed for persistent coverage.

Leading Broad-Spectrum Contact Fungicide
Daconil® fungicide delivers extended protection from more than 50 diseases, including leaf/flower blights, powdery mildew, rusts and scabs.
- Long-lasting fungicide with three formulations and no known resistance.
- Labeled for bulb dips and applications to fruit and nut trees.
- Premium formulation with built-in surfactant is rainfast for superior staying power and extended disease protection.

With Medallion WDG Fungicide, You Can Have It All
With a low use rate of 1-4 oz./100 gal., Medallion® WDG fungicide is an economical choice for long-lasting control when used as a soil drench or foliar spray.
- Excellent control of major root, crown and stem rot diseases, caused by Fusarium, Rhizoctonia, Thielaviopsis, Cylindrocladium and Sclerotium.
- Provides 21-28 days of residual control as a drench and 14 days as a foliar spray.
- Multiple application methods: foliar spray, drench, chemigation and bulb dips.
- Good choice for protecting young plants from root diseases, as it provides reliable protection from seedling to final production.

Fast, Powerful Fungicide for Ornamentals
Micora® fungicide delivers outstanding protection and strong control against diseases caused by downy mildew fungi and Phytophthora sp.
- 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.

One Versatile Solution for Broad-Spectrum Disease Control
Mural® fungicide combines an advanced generation SDHI with Heritage® fungicide to control the widest range of foliar and soil diseases.
- Apply on a 14-day interval for broad-spectrum protection against leaf spots and foliar and stem blights.
- Enhanced protection and residual control at low use rates make Mural a very cost-effective option for preventive rotation programs.
- Excellent systemic movement and dual modes of action reduce potential for resistance.
- Flexibility to apply as a spray or drench with an easy-mixing, water-dispersible granular formulation.

Two Unique Modes of Action, One Effective Resistance Management Tool
Palladium® fungicide leverages the power of two active ingredients and two modes of action to control foliar and stem diseases and provides excellent protection during shipping and times of plant stress.
- Systemic and contact activity provides protection throughout the plant for 7-14 days.
- Effective at low use rates and a very affordable rotation partner for leaf spots, Botrytis and powdery mildew control.
- Excellent tool for resistance management and rotational programs.

Essential Partner in the Fight Against Downy Mildew and Phytophthora Diseases
Segovis® fungicide puts downy mildew and Phytophthora diseases down for the count.
- Unique mode of action with systemic activity provides extended protection.
- Flexibility to be applied as a drench or foliar spray at low use rates.
- Four-hour REI and minimal personal protective equipment (PPE) requirements improve production efficiency.
- Excellent rotation partner with Micora and Subdue® fungicides.

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.
- Key product for root rot programs that provides long-lasting, cost-efficient control of diseases caused by Pythium and Phytophthora fungi.
- Labeled for foliar application to control downy mildew and Phytophthora.
- Extended protection with soil drench applications.

Subdue GR fungicide provides superior protection as a granular formulation for broadcast and soil incorporation treatments.
- Granular formulation can be top-dressed or incorporated into the media for easy application, reducing labor needed for drench applications.
- No REI with soil incorporation.
- Reliable control with flexible rates.
Premier Pre-Emergence Herbicide

Barricade® herbicide delivers season-long control of more than 30 grassy and broadleaf weeds at a low use rate by preventing growth and development of newly germinated weeds.

- Low water solubility keeps Barricade from moving. It stays in the top 0.5 inch of the soil, minimizing its effect on the roots of nearby plants and trees.
- May be applied to ornamentals as a broadcast spray over the top of established plants grown in beds or containers to prevent growth and development of newly germinated weeds.
- Low odor, non-staining formulation eliminates equipment and plant clean-up.
- Excellent tank-mix partner with post-emergent herbicides.

Fast, Effective Grass Herbicide

Fusilade® II herbicide controls grassy weeds without damaging ornamental plants.

- Can be used over most nursery crops and reduces labor costs associated with hand weeding.
- Controls difficult grassy weeds like bermudagrass, crabgrass and torpedograss in containers.
- Rainfast in one hour and the active ingredient moves quickly to all growing points.

Pre-Emergent Control of Grasses, Broadleaf Weeds and Yellow Nutsedge

Pennant Magnum® herbicide can be used on a range of ornamental plants for pre-emergent control of annual and yellow nutsedge, smooth and large crabgrass and broadleaf weeds.

- Can be sprayed over the top of ornamental plants for nutsedge control.
- Unique mode of action for herbicide resistance management.
- Shoot-absorbed, so it can be used on newly potted plants for immediate weed control.

Selective Weed Control for Woody Plants

Princep® Liquid herbicide is a pre-emergent herbicide that enters through plants’ roots to inhibit growth of a wide variety of annual broadleaf and grass weeds in field production, landscape plantings and nurseries.

- Broad-spectrum pre-emergent herbicide for use over many woody plants.
- Offers very affordable control of nuisance weeds such as crabgrass, pigweed, yellow nutsedge, chickweed and groundsel.
- Liquid formulation allows for easy handling and shoot absorption has less impact on roots of ornamentals.

Fast and Precise Weed Control

Reward® is a fast-acting, non-selective herbicide for control of weeds in the greenhouse, nursery and aquatic environments.

- Superior formulation for fast burndown of most common weeds; first effects can be seen within an hour.
- Use under production benches and around containerized or field-grown plants as part of a weed management program.
- Offers aquatic and greenhouse weed control at low use rates.
- As a non-selective herbicide, Reward is a great tank-mix partner:
  - Use in a tank-mix with Barricade or other pre-emergent herbicides for residual weed control.
  - Use a low rate with glyphosate products for controlling perennial and deeply rooted weeds.
**The Proven Standard for Mite and Leafminer Control**
Avid® miticide/insecticide delivers proven, broad-spectrum control of mites and leafminers as well as suppression of aphids, thrips and whiteflies.
- Translaminar activity allows the active ingredient to flow through the plant tissue to quickly stop insect feeding.
- Rainfast within hours of application, with no unsightly residue and very little odor.
- A standard treatment for successful production of bedding plants and woody ornamentals in nurseries, shade houses and outdoor field production.

**Delivers a Precision Strike Against Aphids and Whiteflies**
Endeavor® insecticide inhibits feeding activity to control aphids and whiteflies.
- Translaminar and systemic movement provide complete protection that is rainfast after application.
- Compatibility with beneficial insects makes Endeavor an excellent choice for ICM programs.
- Long-lasting control (14-21 days) of aphids on woody plant material.
- Unique mode of action inhibits feeding activity, making it a good tool for resistance management for whiteflies.

**Fast-Acting Control Across a Broad Range of Foliar and Soil-Dwelling Insect Pests**
Flagship® insecticide offers contact and systemic control of destructive insect pests in ornamental crops.
- Quickly absorbed into the plant, moving systemically to provide long-lasting protection from problem pests like root weevils, leaf beetles, soft scales, aphids, whiteflies and thrips.
- Fast knockdown, controlling pests on contact as well as through ingestion, with minimal effects on beneficial insects.
- Flexibility to apply as a drench or foliar spray.

**Non-Neonicotinoid Alternative for Systemic Control of Ornamental Pests**
Mainspring® GNL insecticide shields nursery crops from chewing and sucking insect pests.
- Provides strong preventive control of a broad range of nursery insect pests including whiteflies, leaf-feeding beetles, caterpillars, aphids, lace bugs, soft scales and thrips.
- Systemic activity provides extended protection to save time and labor on repeated applications.
- Quickly stops insects from feeding to reduce disease transmission and limit plant damage.
- Four-hour REI causes minimal disruption to work schedules.

**Long-Term Protection Without the Long Wait**
Scimitar® GC insecticide provides fast, broad-spectrum pest control at low use rates.
- Micro-encapsulated suspension formulation holds up outdoors to provide long residual, reducing the need for repeated applications.
- Rapid knockdown of key nursery pests like aphids, caterpillars, sawflies and leaf-feeding beetles.
- Low use rates and extended residual make it a superior insecticide for outdoor use.
CONTROLLING KEY PESTS

The appearance of nursery pests can vary depending upon your location or region, type of crops being grown and local environmental conditions. The following program shows typical pests nursery growers may encounter during certain times of the year, Syngenta control options, recommended rates and application intervals. The products may be used in a rotation to protect crops from these damaging pests.

PRODUCING BEAUTIFUL PLANTS

This compilation of powerful products is designed to offer nursery growers efficient, cost-effective protection throughout production and ensure plants grow to the highest quality.

### Insecticides

<table>
<thead>
<tr>
<th>Application Timing*</th>
<th>Product Use Rate (per 100 gal.)</th>
<th>Target Pests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Spring</td>
<td>Endeavor 5 oz.</td>
<td>Aphis</td>
</tr>
<tr>
<td></td>
<td>Mainspring GNL 4-8 fl. oz.</td>
<td>Aphis, Thrips, Leaf-feeding beetles, Lace bugs, Soft scales</td>
</tr>
<tr>
<td></td>
<td>Scimitar GC 5 oz.</td>
<td>Aphis, Thrips, Leaf-feeding beetles, Soft scales</td>
</tr>
<tr>
<td></td>
<td>Avid 8 fl. oz.</td>
<td>Mite egg hatches, Aphis, Thrips, Lace miners, Whirlies</td>
</tr>
<tr>
<td></td>
<td>Endeavor 5 oz.</td>
<td>Aphis, Whirlies</td>
</tr>
<tr>
<td></td>
<td>Mainspring GNL 4-8 fl. oz.</td>
<td>Aphis, Leaf-feeding beetles &amp; caterpillars, Lace bugs, Soft scales, Thrips, Whirlies</td>
</tr>
<tr>
<td>Spring (through early June)</td>
<td>Mainspring GNL 4-8 fl. oz.</td>
<td>Aphis, Leaf-feeding beetles &amp; caterpillars, Lace bugs, Soft scales, Thrips, Whirlies</td>
</tr>
<tr>
<td></td>
<td>Flagship 25WG 6-8 oz. or *Scimitar 5 fl. oz.</td>
<td>Aphis, Thrips, Leaf-feeding beetles, Lace bugs, Whirlies, *Caterpillars</td>
</tr>
<tr>
<td>Early Summer (through mid-July)</td>
<td>Mainspring GNL 4-8 fl. oz.</td>
<td>Aphis, Leaf-feeding beetles &amp; caterpillars, Lace bugs, Soft scales, Thrips, Whirlies</td>
</tr>
<tr>
<td></td>
<td>Flagship 25WG 6-8 oz. or *Scimitar 5 fl. oz.</td>
<td>Aphis, Thrips, Leaf-feeding beetles, Lace bugs, Whirlies, *Caterpillars</td>
</tr>
<tr>
<td>Late Summer</td>
<td>Mainspring GNL 4-8 fl. oz.</td>
<td>Aphis, Leaf-feeding beetles &amp; caterpillars, Lace bugs, Soft scales, Thrips, Whirlies</td>
</tr>
<tr>
<td></td>
<td>Scimitar 5 fl. oz.</td>
<td>Aphis, Leaf-feeding beetles &amp; caterpillars, Lace bugs, Thrips, Whirlies, Spider mites, Broad mites</td>
</tr>
<tr>
<td></td>
<td>Avid 8 fl. oz.</td>
<td>Aphis, Thrips, Mites (prevent over-wintering)</td>
</tr>
<tr>
<td>Mid-Sept./Early Fall</td>
<td>Avid 8 fl. oz.</td>
<td>Aphis, Thrips, Mites (prevent over-wintering)</td>
</tr>
</tbody>
</table>

*Application timing estimates are approximate. Geographic and/or weather conditions may make it necessary to adjust the timing of applications.

### Target Pest

<table>
<thead>
<tr>
<th>Target Pest</th>
<th>Syngenta Product Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aphis</td>
<td>Mainspring GNL, Endeavor, Flagship, Scimitar</td>
</tr>
<tr>
<td>Leaf-feeding beetles</td>
<td>Mainspring GNL, Flagship, Scimitar</td>
</tr>
<tr>
<td>Leaf-feeding caterpillars</td>
<td>Mainspring GNL, Scimitar</td>
</tr>
<tr>
<td>Lace bugs</td>
<td>Mainspring GNL, Scimitar</td>
</tr>
<tr>
<td>Lace miners</td>
<td>Mainspring GNL, Avid, Flagship</td>
</tr>
<tr>
<td>Mites (Two-spotted, Eriophyid, Tarsonemid)</td>
<td>Avid, Scimitar</td>
</tr>
<tr>
<td>Soft scales</td>
<td>Mainspring GNL, Flagship, Scimitar</td>
</tr>
<tr>
<td>Thrips</td>
<td>Mainspring GNL, Avid, Flagship, Scimitar</td>
</tr>
<tr>
<td>Whirlies</td>
<td>Mainspring GNL, Avid, Flagship, Endeavor, Scimitar</td>
</tr>
</tbody>
</table>

### Fungicides

<table>
<thead>
<tr>
<th>Mode of Action Group</th>
<th>Active Ingredient</th>
<th>REI (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banner Maxx II</td>
<td>Propiconazole</td>
<td>12</td>
</tr>
<tr>
<td>Concert II 3 and M5</td>
<td>Propiconazole + Chlorothalonil</td>
<td>12</td>
</tr>
<tr>
<td>Daconil M5</td>
<td>Chlorothalonil</td>
<td>12</td>
</tr>
<tr>
<td>Medallion WDG</td>
<td>Fludioxonil</td>
<td>12</td>
</tr>
<tr>
<td>Micora 40</td>
<td>Mandipropamid</td>
<td>4</td>
</tr>
<tr>
<td>Mural 7 and 11</td>
<td>Solatenol® + Azoxystrobin</td>
<td>12</td>
</tr>
<tr>
<td>Palladium 9 and 12</td>
<td>Fludioxonil + Cypnodim</td>
<td>12</td>
</tr>
<tr>
<td>Segovia U15</td>
<td>Oxathiapiprolin</td>
<td>4</td>
</tr>
<tr>
<td>Subdue Maxx 4</td>
<td>Mefenoxam</td>
<td>0*/48**</td>
</tr>
<tr>
<td>Subdue GR</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Herbicides

<table>
<thead>
<tr>
<th>Mode of Action Group</th>
<th>Active Ingredient</th>
<th>REI (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barricade 3</td>
<td>Proxamidine</td>
<td>12</td>
</tr>
<tr>
<td>Fusilade II 1</td>
<td>Fluazinap-P-butyl</td>
<td>12</td>
</tr>
<tr>
<td>Pennant Magnum 15</td>
<td>S-Metolachlor</td>
<td>24</td>
</tr>
<tr>
<td>Princep Liquid 5</td>
<td>Simazine</td>
<td>12</td>
</tr>
<tr>
<td>Reward 22</td>
<td>Diquat dibromide</td>
<td>24</td>
</tr>
</tbody>
</table>

*Exceptions: when drenching or soil incorporated, see label. **When applying by foliar spray.
For more information about the Syngenta Plant Protection nursery portfolio, please visit GreenCastOnline.com/Ornamentals