Aphids are soft-bodied insects with long legs and antennae belonging to the family Aphididae within the Homoptera insect order, which also includes cicadas, hoppers, psyllids, scales and whiteflies. Aphids range in color from greenish-yellow to dark green, dark brown and black. They have tube-like structures called cornicles that protrude from the back of their bodies, differentiating them from other insects.

The most common aphid species found in the greenhouse are:

- Green peach (*Myzus persicae*)
- Melon (*Aphis gossypii*)
- Foxglove (*Aulacorthum solani*)
- Root (*Pemphigus spp.*)
**SUSCEPTIBLE CROPS**

Many plants and herbs are prone to aphids, including:

- Alyssum
- Calibrachoa
- Celosia
- Chrysanthemum
- Dahlia
- Gerbera
- Impatiens
- Pansy
- Salvia
- Verbena
- Zinnia

**LIFECYCLE**

Aphids have many generations each year. Asexual reproduction is most common in greenhouses and other enclosed areas. Outside, aphids will typically overwinter in the egg stage. In mild climates or warm greenhouses, female aphids can produce up to 12 nymphs each day, which then become adults in 7-10 days.

Most adult aphids are wingless, but they do have the ability to produce winged forms if a new food source is needed or the colony becomes too large. Winged aphids are weak flyers and wind/air flow is a major dispersal factor.

**DAMAGE**

The fast development time from young nymph to adult, especially in warmer conditions, means populations can build quickly. Aphids are often found feeding in groups on new growth, but can also be found on stems, buds and lower leaves.

Aphids use their piercing mouthparts to extract fluids from stems, leaves and other plant parts, which leads to distorted growth. Aphids most commonly cause damage to crops by:

- Removing phloem sap during feeding
- Excreting honeydew (a shiny, sticky substance) as they feed, which often results in the growth of sooty mold fungus on leaf surfaces
- Transmitting plant viruses

**CULTURAL PRACTICES**

Frequent, regular scouting is important because aphid populations can build quickly.

- Inspect new plants for aphids before introducing them into production areas
- Examine under leaf surfaces as well as any new growth on plants
- Hold white paper under plants and shake or tap the foliage to dislodge pests or whitish cast skins. This will help reveal aphid colonies that might be hidden in the foliage
- Use yellow sticky traps near doors and vents to monitor winged adults
- Group susceptible plants together to minimize aphid spread
- Avoid over-fertilizing with nitrogen-based fertilizers as this can increase aphid reproduction

Beneficial insects such as parasitoid wasps (*Aphidius spp.*), predatory midges (*Aphidoletes aphidimyza*) and lacewing larva (*Chrysoperla carnea*) work well but require early and frequent releases for adequate control.

*Green peach aphids are one of the most common vectors of plant viruses on ornamental crops*
**CHEMICAL CONTROL OPTIONS**
Syngenta offers several products for aphid control with different modes of action to minimize the onset of insect resistance. Apply products with systemic activity early in the crop cycle to keep populations from establishing. Aphids on the upper canopy are easier to control with foliar sprays, but systemic insecticides are most effective against aphids feeding on new growth, the undersides of leaves or lower in the plant canopy.

<table>
<thead>
<tr>
<th>Product</th>
<th>Mode of Action</th>
<th>Protection Duration</th>
<th>Compatibility</th>
<th>Labeled REI</th>
<th>Use Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mainspring® GNL</td>
<td>Systemic</td>
<td>10 weeks</td>
<td>Beneficial insects</td>
<td>4-hour REI</td>
<td>4–8 fl. oz./100 gal. for foliar sprays and 8–12 fl. oz. for drench</td>
</tr>
<tr>
<td>Endeavor® insecticide</td>
<td>Unique mode of action</td>
<td>3 weeks</td>
<td>Beneficial insects</td>
<td>12-hour REI</td>
<td>2.5–5 oz./100 gal.</td>
</tr>
<tr>
<td>Flagship® 25WG insecticide</td>
<td>Systemic</td>
<td>2–8 weeks</td>
<td>Beneficial insects</td>
<td>12-hour REI</td>
<td>2–8 oz./100 gal.</td>
</tr>
<tr>
<td>Scimitar® GC insecticide</td>
<td>Within minutes</td>
<td>Long-term</td>
<td>Beneficial insects</td>
<td>24-hour REI</td>
<td>1.5–5 oz./100 gal.</td>
</tr>
</tbody>
</table>
CONTROL OF GREEN PEACH APHID ON CALIBRACHOA

CONTROL OF FOXGLOVE APHID ON SALVIA

Learn more about the Syngenta portfolio of products for aphid control at www.GreenCastOnline.com/Ornamentals

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