Aphids
Damage to Plants: Honeydew & dark frass, leaf discoloration, puckered leaves.

Solutions:
- Green Lacewing - *Chrysoperla rufilabris*
- Ladybugs - *Hippodamia convergens*
- Minute Pirate Bug - *Orius insidiosus*
- Assassin Bugs - *Zelus renardii*
- Aphid Parasites - *Aphelinus abdominalis*, *Aphidius ervi* & *Aphidius colemani*
- Aphid Predator - *Aphidoletes aphidimyza*
- Spinosad
- *Beauveria bassiana*

Cyclamen & Broad Mites
Damage to Plants: Flowers can wither, distorted leaves, leaves curled inward, dark & streaked foliage, compact leaf masses.

Solutions:
- Mite Predator - *Neoseiulus (=Amblyseius) fallacis*, *Amblyseius andersoni*, *Neoseiulus (=Amblyseius) californicus* & *Amblyseius swirskii*
- Thrips Predator - *Neoseiulus (=Amblyseius) cucumeris*

Budworms
Damage to Plants: Chewed, deformed or dying buds.

Solutions:
- Minute Pirate Bug - *Orius insidiosus*
- Assassin Bugs - *Zelus renardii*
- Moth Egg Parasites - *Trichogramma sp.*
- Spinosad
- *Bacillus thuringiensis var. kurstaki* (Btk)

Flea Beetles
Damage to Plants: Jumping insects, chewed leaves, small white buckshot holes.

Solutions:
- Assassin Bugs - *Zelus renardii*
- *Beauveria bassiana*
- NemaSeek Beneficial Nematodes - *Heterorhabditis bacteriophora* (Hb)

Cutworms
Damage to Plants: Missing or damaged seedlings cut right at soil level.

Solutions:
- NemaSeek Beneficial Nematodes - *Steinernema carpocapsae* (Sc)
- Moth Egg Parasites - *Trichogramma sp.*
- Spinosad
- *Bacillus thuringiensis var. kurstaki* (Btk)
- Cutworm collars

Fungus Gnats
Damage to Plants: Yellowing leaves, wilting plants, lack of root structure, damage may appear as nutrient deficiency.

Solutions:
- Fungus Gnat Predator - *Stratiolaelaps scimitus* (=*Hypoaspis miles*), *Rove Beetle - Dalotia coriaria*
- NemaSeek Beneficial Nematodes - *Steinernema feltiae* (Sf)
- *Beauveria bassiana*
- *Bacillus thuringiensis israelensis* (Bti)

Grubs
Damage to Plants: Yellowing leaves, wilting plants, lack of root structure, damage may appear as nutrient deficiency, non-existent roots.

Solutions:
- NemaSeek Beneficial Nematodes - *Heterorhabditis bacteriophora* (Hb)
- NemaSeek Beneficial Nematodes - *Steinernema riobrave* (Sr)

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**METE OUR BENEFICIAL INSECTS**
<table>
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<tr>
<th>Pest</th>
<th>Damage to Plants</th>
<th>Solutions</th>
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| Mealybugs/Scale  | Leaves may wilt, drop off easily, be discolored or reduced in size. Infested plants may have a distorted stem or growing points. | • Ladybugs - Hippodamia convergens  
• Mealybug Destroyer - Cryptolaemus montrouzieri                                    |
| Root Aphids      | Lack of vigor, withering leaves, yellowing leaves, signs of nutrient deficiency. | • NemAttack Beneficial Nematodes  
- Heterorhabditis bacteriophora (Hb)  
• Beauveria bassiana  |
| Russet Mites     | Leaflets curl, chlorosis, necrosis, lower leaves dry out, leaves look bronze in color. | • Thrips Predator - Neoseiulus (=Amblyseius) cucumeris  
• Mite Predator - Amblyseius andersoni, Neoseiulus (=Amblyseius) californicus & Galendromus occidentalis  
• Sulfur                                                |
| Slugs/Snails     | Silver trail left on leaves, holes in leaves.        | • Spinosad  
• Iron Phosphate                                               |
| Spider Mites     | Webbing, leaf edges curling or burned, slowed growth, speckled, leathery golden leaves. | • Mite Predators - Amblyseius andersoni, Phytoseiulus persimilis, Neoseiulus (=Amblyseius) fallacis, Mesoseiulus longipes, Galendromus occidentalis & Neoseiulus (=Amblyseius) californicus  
• Minute Pirate Bug - Orius insidiosus  
• Spidermite Destroyer - Feltiella acarisuga & Stethorus punctillum  
• Ladybugs - Hippodamia convergens  
• Assassin Bugs - Zelus renardii |
| Thrips           | Silver/brown scarring on leaves & stems, browning & drying leaves, puckered leaves. | • Green Lacewing - Chrysoperla rufilabris  
• Assassin Bugs - Zelus renardii  
• Mite Predator - Amblyseius swirski  
• NemAttack Beneficial Nematodes  
- Steinemema feltiae (Sf)  
• Minute Pirate Bug - Orius insidiosus  
• Fungus Gnat Predator - Stratiolaeps scinitus (=Hypoaspis miles)  
• Spinosad  
• Beauveria bassiana  
• Thrips Predator - Neoseiulus (=Amblyseius) cucumeris |
| Whiteflies       | Piercing/sucking marks, dust like substance when touched, silver/white coloring. | • Green Lacewing - Chrysoperla rufilabris  
• Minute Pirate Bug - Orius insidiosus  
• Whitefly Parasite - Encarsia formosa & Eretmocerus eremicus  
• Mite Predator - Amblyseius swirski  
• Whitefly Predator - Delphastus catalinae  
• Beauveria bassiana |

**ARBICO Organics Difference**
Visit arbico-organics.com for our full line of beneficial, biological and botanical pest control solutions.

**History**
We have been in business for over 35 years servicing conventional, transitional and organic growers.

**Quality & Selection**
For the home gardener to the commercial grower, we pride ourselves on the quality and selection of available products.

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Our on-staff IPM Specialists are ready to listen to your needs and recommend solutions tailored to your situation.