POWERFUL INSECT CONTROL IN CITRUS
As thrips continue to be a serious pest in citrus, management programs should revolve around the most effective product – Delegate® insecticide. Since 2008 – its first full year of use – growers and PCAs have reported excellent results.

Furthermore, University of CA and University of AZ efficacy trials over the last six years have shown that Delegate provides the highest level of control among registered insecticides.

Delegate controls thrips by contact and ingestion, providing quick knockdown and some residual. Quick knockdown is important because thrips can cause scarring in less than a week. Systemic insecticides may take up to a week before decreasing thrips populations.

- Does not flare mites or other secondary pests
- Does not significantly impact the predatory mite, Euseus tularensis
- MRLs in all major export countries have been received. Growers must verify if specific citrus crop is covered under existing MRLs.

**Updated Delegate® use prior to petal fall**

The newest Delegate specimen label allows applications prior to petal fall so long as applications occur at least three hours before bee activity. The bloom timing window for Delegate is now identical to that stated in the Success® insect control label.

**Multi-Pest Activity**

While citrus thrips is most often the target pest for Delegate, treatable populations of other pests may occur at thrips timing. Applications of Delegate will also control katydids (nymphs only), cutworms and Asian citrus psyllid. No other insecticide can control all four of those pests – something to consider when selecting a product to use this spring.
Lorsban® Advanced insecticide remains an important part of citrus pest control programs.

- Excellent control of scale – red and citricola
- Control of secondary pests such as katydids, various worms, ants
- Insignificant effect on vedalia beetle, a predator of cottony cushion scale

**Redistribution Activity Confirmed**

The “redistribution” phase of Lorsban Advanced is one of its most valuable characteristics. The redistribution phase of chlorpyrifos is often strong enough to control pests that are not otherwise controlled by direct contact or ingestion. This is especially beneficial where pests are nearly immobile or located in hard-to-reach areas.

To confirm the “redistribution” properties of Lorsban Advanced, a trial was conducted in mature navel orange trees in August 2014. The target pest was citricola scale. Lorsban Advanced was applied at 6 pt/A plus 0.5% v/v NIR-415 in 200 gpa using a mist-blower.

Prior to application, individual shoots were covered by plastic bags (see photo). Bags were removed after application. “Redistribution” was determined by assessing citricola mortality on leaves that were covered.

**Conclusion:** The redistribution of Lorsban Advanced throughout citrus canopies following application resulted in 97% control of citricola scale on leaves that had been covered during application.
Intrepid® insecticide is in the molt-accelerating class of compounds. In citrus, it is labeled for control of leafminer, peelminer, cutworm and leafroller.

Although mature citrus trees generally tolerate leaf damage from leafminer without any damaging effects on tree growth or fruit yield, young trees can be injured. On new plantings and in nurseries, foliage growth can be held back by leafminer which can prevent proper growth of trees.

- Won't disrupt key beneficial insect predators, parasites or pollinators, including *Euseus tularensis* and vedalia beetle
- Won't flare secondary pests

### Quick Reference

<table>
<thead>
<tr>
<th></th>
<th>Delegate®</th>
<th>Lorsban® Advanced</th>
<th>Intrepid®</th>
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</thead>
<tbody>
<tr>
<td><strong>Active Ingredient</strong></td>
<td>spinetoram</td>
<td>chlorpyrifos</td>
<td>methoxyfenozide</td>
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<tr>
<td><strong>Class of Chemistry</strong></td>
<td>spinosyn (IRAC Group 5)</td>
<td>organophosphate (IRAC Group 1B)</td>
<td>diacylhydrazine (IRAC Group 18)</td>
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<tr>
<td><strong>Rate</strong></td>
<td>4.8 oz/A</td>
<td>8 - 12 pt/A</td>
<td>8 - 16 oz/A</td>
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<tr>
<td><strong>Adjuvant</strong></td>
<td>A premium, narrow range oil may help with thrips</td>
<td>—</td>
<td>Add a high-quality spreader</td>
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<tr>
<td><strong>Re-entry Interval</strong></td>
<td>4 hours</td>
<td>5 days</td>
<td>4 hours</td>
</tr>
<tr>
<td><strong>Pre-harvest Interval</strong></td>
<td>1 day</td>
<td>35 days (&gt; 7 pt/A)</td>
<td>21 days (up to 7 pt/A)</td>
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<tr>
<td><strong>Special Instructions</strong></td>
<td>Raise pH of spray mixture to 6-8 before adding Delegate</td>
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<tr>
<td><strong>Key Pests</strong></td>
<td>Citrus thrips, Asian citrus psyllid, Katydid nymphs, Cutworm</td>
<td>CA red scale, Citricola scale, Katydids, Various worms, ants</td>
<td>Leafminer, Peelminer, Cutworm, Leafroller</td>
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</tbody>
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TO LEARN MORE

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