Cotton Whitefly Control

Knack® Insect Growth Regulator is a highly selective, long-lasting foliar treatment to control whiteflies in cotton.

- Dependable, long lasting tool for early protection.
  - Keeps whitefly populations from exploding, helps prevent sticky cotton
- Translaminar – kills whiteflies where they feed
- Soft chemistry – easy on beneficials

How to Scout for Whiteflies

- Routinely check field margins for whiteflies as these areas are often infested first.
  - Be aware of surrounding crops such as melons, tomatoes, citrus, alfalfa or cotton. These have the potential to host early infestations – especially when prevailing winds blow toward susceptible crops.
- Be especially alert when nearby host crops are in decline.
- Look at the bottom one third of your plants, as nymphs develop long before populations reach treatable levels.
- Use a hand-lens to detect newly laid eggs on top of the new leaves.
- In cotton, apply a foliar insecticide when whiteflies reach threshold levels. This is when 40% of the 5th main stem leaves have three or more whitefly adults and one or more visible nymphs per leaf area. Sample at least 30 leaves from two areas of the field.

How To Use

<table>
<thead>
<tr>
<th>Rate</th>
<th>8 – 10 fl oz/A</th>
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<tbody>
<tr>
<td>Timing</td>
<td>Threshold. Apply when you see 3-5 adults per leaf, and 1 nymph / leaf area</td>
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<tr>
<td>Method</td>
<td>Ground or Air</td>
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<tr>
<td>Spray volume</td>
<td>10 – 50 GPA by ground, 5 – 10 GPA by air</td>
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<tr>
<td>Adjuvant</td>
<td>Valent recommends use of a Chemical Producers &amp; Distributors Association-certified adjuvant.</td>
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<tr>
<td>REI</td>
<td>12 hours</td>
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<tr>
<td>PHI</td>
<td>28 days</td>
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What to expect in the field after a Knack application:

- Knack works on whitefly eggs and nymphs, so adults will remain after application.
- You will see a buildup of eggs, because Knack prevents egg hatch.
- About 10 days after application, there will be a noticeable increase in 4th instar nymphs as Knack “freezes” them at this stage.
- Depending on temperature, 10 – 16 days after application, nymphs will look smaller than normal and will start to look sunken or collapsed (see photos below). The nymphs die before reaching adult stage.

![Untreated, Day 12, Day 16](image)

Adult whitefly image courtesy of Scott Bauer, USDA Agricultural Research Service, Bugwood.org