**NATURALIS® O**

Biological Insecticide

**GENERAL INFORMATION**

Naturalis O works primarily through contact action, so good spray coverage is essential. Treat when pest populations are manageable and before extensive damage occurs to crops.

Naturalis O is a flowable formulation of the spores of *Beauveria bassiana* ATCC 74040. It contains no less than 2.3 x 10^7 viable spores per milliliter of product.

**Common Name:** *Beauveria bassiana*

**Class:** Biopesticides

**Packaging:** 1 quart, 6 per case

**RESTRICTED ENTRY INTERVAL (REI) AND SIGNAL WORD**

REI = 4 hours  
Signal Word = CAUTION

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

- Long-sleeved shirt and long pants
- Chemical resistant gloves
- Mist filtering respirators
- Shoes plus socks

**MODE OF ACTION**

Naturalis O acts through contact with the insect. Spores must attach to the target insect to be effective. Thorough spray coverage is necessary for optimal control. Spores may attach to insects either by direct contact from spray or from contact with sprayed foliage or soil. Once on the insect, spores germinate and penetrate through the insect cuticle. The fungus then grows rapidly within the insect, causing mortality while generating new spores. Once infected, the insects die. There is no defense. Knockdown may occur within three days and most insects are controlled within five days.

**USE SITES**

Naturalis O may be used on greenhouse vegetables, nurseries, greenhouse ornamentals, landscape plantings and all other areas where ornamental plants are grown.

**APPLICATION AND RATES**

- Naturalis O may be applied as a spray or a coarse spray. Sprays are generally targeting foliage pests, while coarser sprays are targeting soil pests such as fungus gnat or shore fly larvae. For optimal control of shore flies and fungus gnat larvae a coarse spray should also be direct below the benches or in any soil or gravel areas.
- Applications at 3 – 5 day intervals may be necessary to control large populations or increasing pressure.
- Addition of sticking agents, insecticidal soaps or oils may improve control of insects.
- Do not allow tank mix to stand more than 4 hours before use.
- Shake well before use.
- Store product in cool dry place (39 F to 80 F)
- Wait at least 48 hours after application before applying fungicides.
- Rates are from 30 to 100 fluid ounces per 100 gallons or .3 to 1 fluid ounces per gallon spray.
**KEY INSECTS CONTROLLED:**

- Whiteflies
- Thrips
- Aphids
- Fungus Gnats
- Shore Flies

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**TANK MIXING**

Do not mix **Naturalis O** with fungicides. **Naturalis O** may be tank mixed with most insecticides and miticides, including an be mixed with products such as Adept®, Talus®, Avid®, Marathon®, Dimilin®, Dursban® 50W, Enstar® II, Mavrik®, Orthene™, Sevin®, Conserve®, Talstar®, Decathlon®, Triact® 70, ProMite™.

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**PIStm Prescription Insect Resistance Management Rotation Suggestions**

<table>
<thead>
<tr>
<th>Application</th>
<th>Product</th>
<th>Target pests</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Marathon granular or drench + Discus</td>
<td>aphids, whiteflies, thrips, mealybugs, fungus gnat larvae</td>
<td>Applications should be repeated three times at 5-7 day intervals.</td>
</tr>
<tr>
<td>2</td>
<td>Naturalis O+Azatin</td>
<td>aphids, whiteflies, thrips, fungus gnat and shore fly adults</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Judo</td>
<td>whiteflies and mites</td>
<td></td>
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