Cross-Spectrum Insecticide for Turf

Grandevo® PTO is an advanced, cross-spectrum insecticide that offers protection against chewing and sucking insects. Its complex actions on pests — oral toxicity, reduced reproduction and repellency — and up to 14 days of residual control gives golf course superintendents and lawn care professionals a powerful new tool to strengthen their pest management strategies. Grandevo PTO provides performance and flexibility for control of chinch bugs, sod webworms, chafer, cutworms and other damaging pests in turfgrass.

IDEAL FOR GOLF COURSES, RESIDENTIAL LAWNS, AND COMMERCIAL TURF

Grandevo PTO gives you benefits that add value to your operations and your lawn care service:

- Grandevo PTO allows you to offer a premium spray program to environmentally-minded customers.
- No “chemical” smell to upset sensitive customers or players.
- No limit on the number of times Grandevo PTO can be applied during the season.
- With a low risk to developing resistance, using Grandevo PTO it in a rotation or in a tank mix can help extend the effective life of higher risk insecticides.
- Grandevo PTO has been shown to cause no harm to beneficial insects or honey bees.

FEATURES

- Cross-spectrum protection against chewing and sucking insects
- Complex mode of action
- Easy on beneficials
- 0-hour REI (turf)
- Minimal PPE / no buffer required for spray applications
- Approved for field and greenhouse applications
Labeled Uses
- Commercial turfgrass
- Recreational turfgrass
- Outdoor residential
- Ornamental grasses

Labeled Pests
- Armyworm
- Chinch bug
- Cutworm
- Leafhopper
- Sod webworms
- White grubs, including:
  - European chafer
  - Northern and Southern masked chafer

Best Use Recommendations

Control of foliage feeding pests of turf, including chinch bugs, leafhoppers, sod webworms, armyworms and cutworms:

Grandevo PTO is highly effective against newly hatched larvae and nymphs of targeted species and significantly reduces the reproductive capabilities of many adult sucking pests. Apply Grandevo PTO at 0.75 – 1.5 ounces per 1000 square feet in a minimum of 100 gallons of water per acre (about 300 fluid ounces per 1000 square feet) when infestations are first observed targeting newly hatched small larvae and nymphs. Additional applications may be necessary on a 7 - 14 day interval depending upon pest pressure and length of egg hatch. Monitoring flight patterns of armyworms, black cutworm and sod webworm with pheromone traps can aid in timing of applications. Do no irrigate for at least 24 hours following application of Grandevo PTO. Include a quality non-ionic adjuvant to promote coverage of Grandevo PTO.

Control of soil dwelling pests of turf including European, Northern and Southern masked chafer:

Grandevo PTO must be applied following egg hatch of targeted pests. The need for an application can be based upon historical monitoring of the site, previous records or experiences or current adult beetle monitoring. Optimum control will be achieved when applications are followed by natural rainfall or sufficient irrigation to move the active ingredient in Grandevo PTO through the thatch. Apply Grandevo PTO at 4 ounces per 1000 square feet in a minimum of 100 gallons of water per acre (about 300 fluid ounces per 1000 square feet) following egg hatch or when infestations are first noted. If rainfall is not expected within 24 hours, irrigate as soon as practical following application with ½ - 1 inch of water.

<table>
<thead>
<tr>
<th>Product*</th>
<th>Armyworm</th>
<th>Chinch Bug</th>
<th>Cutworm</th>
<th>Leafhopper</th>
<th>Sod Webworm</th>
<th>White Grub</th>
<th>European Chafer</th>
<th>Northern Masked Chafer</th>
<th>Southern Masked Chafer</th>
<th>Oriental Beetle</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GRANDEVO</strong></td>
<td>∗</td>
<td>∗</td>
<td>∗</td>
<td>∗</td>
<td>∗</td>
<td>∗</td>
<td>∗</td>
<td>∗</td>
<td>∗</td>
<td></td>
</tr>
<tr>
<td>PTO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DYLOX® 420 SL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DELTAGARD® G</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MERIDIAN® 0.33G</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEMPO® SC ULTRA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARENA® 50 WDG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MERIT® 0.5 G</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TALSTAR® GC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Chart reflects Florida use applications on grasses.

Always read and follow label directions.

Distributed By:

ENGAGE AGRO USA
118 East Carleton Street, Suite A
Prescott, AZ 86303 - Phone: (928) 445 - 7990
www.engageagrousa.com

© 2013 Marrone Bio Innovations, Inc. All rights reserved. Grandevo, the Grandevo logo, Marrone Bio Innovations, and the Marrone Bio Innovations logo are trademarks of Marrone Bio Innovations, Inc. Other trademarks and company names are the property of their respective owners. U.S. Patent No. 7,244,657. Additional patents pending.