Agnique MMF Granule Field Trial

Maricopa County
2009

Trial Conducted by Kara Cox (Maricopa County Vector Control) and Dean Oester (Cognis)
Presented by Gale Jirik (ADAPCO)
What is Agnique MMF?

AGNIQUE® MMF is a surfactant
Similar to products used in cosmetics and skin lotions for more than 30 years
Non-toxic (LD$_{50}$ > 20,000 mg/kg, oral rat) Non-irritating
generally a clear, colorless, odorless liquid
MMF’s mode of action

It reduces the surface tension of the water. Larvae and pupae can’t attach to the surface so they work themselves to death swimming up & down, which results in eventual drowning.
Agnique MMF is a larvicide and pupicide! It is the only larvicide/pupicide labeled for use in potable water in the United States!
Maricopa County Field Trial

The purpose of the trial was to determine the efficacy of Agnique MMF Granules in swimming pools and compare last years formulation with the new formulation
Two sites were treated

Site One - 4115 W. Rose Lane, Phoenix – Last Years Formulation

Site Two - 6433 N. 44th Ave., Phoenix – This Years Formulation
Site Two
<table>
<thead>
<tr>
<th>April 21(^{st}) (Initial Treatment)</th>
<th>Site One</th>
<th>Site Two</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1(^{st}) – 4(^{th}) instar larvae and pupae present</td>
<td>1(^{st}) – 4(^{th}) instar larvae and pupae present</td>
</tr>
<tr>
<td>April 23(^{rd}) (2 day re-inspection)</td>
<td>Reduced larvae population present (light breeding) pupae dead</td>
<td>Reduced larvae population 1(^{st}) instar larvae – (light breeding) pupae dead</td>
</tr>
<tr>
<td>April 27(^{th}) (6 day re-inspection)</td>
<td>Reduced larvae population present, (light breeding) few pupae present, retreated pool</td>
<td>Heavy larvae population present 1(^{st}) – 2(^{nd}) instar, no pupae</td>
</tr>
<tr>
<td>April 29(^{th}) (8 day re-inspection)</td>
<td></td>
<td>Heavy larvae population present 1(^{st}) – 4(^{th}) instar, no pupae</td>
</tr>
<tr>
<td>May 4(^{th}) (13 day re-inspection)</td>
<td></td>
<td>Heavy larvae population present 1(^{st}) – 4(^{th}) instar, no pupae, retreated pool</td>
</tr>
</tbody>
</table>
Conclusion

• Old formulation reduced population but a few pupae developed. Reason unclear

• New formulation continued to provide control out to 13+ days
Thanks to John Townsend, Kirk Smith, Kara Cox (Maricopa County Vector Control) and Dean Oester (Cognis)

Questions?

Thank You!