



**Grub Shield kills and repels surface feeding insects and grubs without harsh ingredients**

**Grub Shield is a Natural product that is eco-friendly. Specifically designed as an excellent alternative to synthetic pesticides as a means to reduce the potential negative impacts to human health and the environment. Grub Shield contains a unique combination of botanical oils, oyster and clam shells.**



Oyster and Clam Shells contain Chitin. Chitin is found in the exoskeleton of insects, fungi, yeast, and algae, and in the internal structures of other vertebrates. When digested by micro-organisms they release Chitinases. These are enzymes that degrade chitin. Weakening the exoskeleton of insects causing breaks in the body and interrupting the molting process.

Chitin is used by plants to increase cell wall density. Thicker walls make it harder for fungal pathogens to penetrate into the plant. Fungi's exoskeleton contains chitin. Chitinases will breakdown pathogenic fungi in the soil.

Botanical oils have a number of advantages for controlling insects. They are virtually non-toxic to humans and other mammals, and are relatively safe to beneficial insects in the landscape. They control a wide range of common soft-bodied pests including Chinch Bugs. Botanical oils coat or damage the protective coat of soft-bodied insects causing them to be smothered or dehydrate. Botanical Oils also act as antagonist driving grubs away from root zone deeper into the soil.

**Applications Rates:**  
32 oz. per acre or .75 oz. per 1,000 sq.ft. Minimum water volume of 1 gallon per 1,000 sq. ft.

Grub Shield is a minimum risk product that complies with US EPA 25B and is exempted from regulation under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

**FIFRA 25(b) Exemption**

This product has not been registered by the United States Environmental Protection Agency. Branch Creek Organics, LLC represents that this product qualifies for exemption from registration under the Federal Insecticide, Fungicide and Rodenticide Act.

**Grub Shield provides turf managers with significant benefits, including:**

- Controls Surface and Sub-Surface Insects.
- No pH sensitivity
- Does not break down with UV light
- Will not tie up with thatch, micro-organisms are free flowing

**Additional Information:**

- For grubs apply one week prior to when larva first emerge and are in the first instar.
- Chinch bug control can be achieved at any stage of the life cycle.
- Sandy Soil may have reduced efficacy due to lack of soil micro-organisms. For better results tank mix with Nucleus Complete.
- Product must be watered in to reach target insect.

**Active Ingredients:**

Eugenol.....	1.5%
Soybean Oil.....	1.5%
Rosemary Oil.....	1.0%
Cinnamon Oil.....	0.5%
Sesame Oil.....	0.5%
<b>Inert Ingredients**.....</b>	<b>95%</b>
<b>Total Ingredients.....</b>	<b>100%</b>

\*\*Water, Oyster Shells, Clam Shells

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