



## **DEBUG TURBO**

### **APPLICATION RECOMMENDATION FOR MOLE CRICKETS (NYMPHS)**

- General:** DEBUG TURBO is a neem based (containing about 67% Neem Extract with azadirachtin, and 20% Synergist) botanical insecticide, anti-feedant, repellent, and growth regulator. It is also recommended for use as a preventative even if there is no insect problem.
- For the Control of:** Mole Cricket Nymphs [ORTHOPTERA- Gryllotalpidae).
- Spraying Equipment:** Since DEBUG TURBO is a contact insecticide, total coverage of the turf is very important to get good results. It would be necessary to irrigate the turf to push the DEBUG TURBO down to about 1-4 inch below the turf level where the Mole Crickets lay their eggs and the nymphs make tunnels. Please calculate the number of minutes needed for the irrigation water to move the DEBUG TURBO down this level and set the irrigation timer accordingly.  
For DEBUG TURBO to be most effective, pH of the water used for mixing should be around 5.5. Please bring the pH close to this level, by using a buffer, like Citric acid.  
Apply early morning or late evening (less than 95°F).

#### **APPLICATION RATES, DILUTION AND TIMINGS: (APPLICATION RATES ARE PER 1000 SQ. FEET)**

- BIOLOGY & IDENTIFICATION:** Mole Crickets over winter as adults or nymphs in the soil. Mating takes place late winter/early spring. Flight activity is in March and early April. About 14 days after mating the female makes an egg chamber and lays eggs. Eggs take 3-4 weeks to hatch about late April to May. There is no pupal stage for Mole Crickets, and the nymphs resemble the adults but are smaller, and lack wings. They begin to feed, and tunnel immediately. The nymphs molt 8 to 10 times in the 3 to 4 months it takes them to become adults.
- WHEN TO TREAT:** It is time to give a first treatment of DEBUG TURBO immediately after the egg hatching stage. Since the crickets are very sensitive to local weather conditions in spring, they may retreat underground if the weather turns cold, or when it is raining and wet.
- TIMING:** The first application should be around late April. Follow it up with a second application around mid-May. The third application could be around end-May or early June. Test the area being treated for the presence of nymphs around mid-June. If they are still present give a fourth application around mid/late June.
- APPLICATION RATES:** Mix about 4.5 to 6 fl. oz. of DEBUG TURBO in 4 to 6 gallons of water. Check the pH of the mixture and if necessary use a buffer to bring down the pH to around



5.5. Spray over 1000 square feet. Start the irrigation cycle, or the sprinklers, and deliver enough water to push the DEBUG TURBO to the desired depth in the soil.