

# Mole crickets on rice

Scapteriscus abbreviatus, S. borellii, S. vicinus, Gryllotalpa africana



Mole cricket (Andrey Vlasenko, www.flickr.com)

Prevention	Monitoring	Direct Control	Direct Control	Restrictions
<ul style="list-style-type: none"> <li>Most injury to rice seedlings occurs shortly after transplanting, so replacement of lost plants will help compensate for injury</li> <li>Use the proper irrigation schedules and correct fertilizer recommendations to maintain the crop in the healthiest condition possible to allow the plants to recover from injury by mole crickets</li> <li>Encourage biological control agents (sphecid wasps, carabid beetles, nematodes, and fungus) by minimizing insecticide use</li> </ul>	<ul style="list-style-type: none"> <li>Mole crickets are large, brownish insects. They are rather cricket-like in shape but have mole-like, digging front legs. The adults have wings and many are powerful, though clumsy, fliers. The body is covered with short, dense hairs</li> <li>Assess population density of nymphs by checking frequency of soil surface tunneling</li> <li>Estimate nymph and adult abundance by flushing with 0.5% aqueous solution of dish washing soap</li> <li>If 2 to 4 mole crickets come to the soil surface within three minutes of application of the soap solution, corrective action is justified to reduce mole cricket numbers</li> <li>Additional relevant crops: cabbage, carrot, eggplant, lettuce, onion, pepper, potato, sweet potato, tomato</li> </ul>	<ul style="list-style-type: none"> <li>Use bund shaving and plastering of fresh wet soil to help eliminate the eggs of mole crickets</li> <li>During land preparation, search for and collect the nymphs and adults, and destroy</li> <li>Flood rice fields for 3-4 days. Level the field for better water control which can help to remove the eggs on the soil and reduce cricket populations</li> <li>Set baits by using rice bran, cotton seed meal, or some other grain product plus 2-5% toxicant. Add 5-15% water and 2-5% molasses to the grain toxicant mixture</li> <li>Spray with neem: mix 400g of dried powdered leaves to 3 litres of water and apply regularly at 80L/ha</li> </ul>	<ul style="list-style-type: none"> <li>When using a pesticide (even a botanical home-brew), always wear protective clothing.</li> <li>Follow the instructions on the product label, such as dosage, timing of application, preharvest interval and max number of sprays</li> <li>Flush borrows in soil with pyrethrin based insecticide solution (Deltamethrin 250EC) at rate of 250mls to 20L of water to kill adults. Contact insecticide and stomach poison IRAC group 3A</li> <li>Spray with pyrethroid insecticides like Deltamethrin (e.g. Deltapaz 1.25EC, Delete 2.5 SC, Decis 2.5 EC) Contact insecticide and stomach poison IRAC group 3A</li> </ul>	<ul style="list-style-type: none"> <li>WHO class II (Moderately hazardous). Check - pesticides might not be allowed in some local IPM schemes. Toxic to aquatic organisms and other aquatic organisms. Do not contaminate surface waters or ditches</li> <li>WHO toxicity class II (moderately acute hazardous); Spray only once per season. Pre-harvest interval (p.h.i) 35 days; r.e.i. 3 days.</li> </ul>



## Ghana

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