





Technical Bulletin for: Coconut Rhinoceros Beetle

Oryctes rhinoceros (Linnaeus) • Coleoptera, Scarabaeidae • ORYRHI



DISTRIBUTION	Asia (between India and Indonesia), spread to Yemen, Reunion Islands, and Hawa'i
HOSTS	Many species of palm, including Coconut, Sago, Betel, Royal, Oil and Ornamental Palms, as well as rotting material on plants like Breadfruit and Mango
DESCRIPTION	
ADULT MOTH	Reach 30-63 mm in length and are dark brown or black Both males and females possess a similarly sized horn used for leverage when moving within tightly-packed leaves or within the cavities they create in the crown of palms, the horn length is longer on average for males.
LARVAE	Milky white with red heads, C-shaped, has three pairs of segmented legs and, over 3 instars, grow to 100 mm in length
EGGS	Yellowish-white usually 3mm in diameter. Initially oval I shape, but swell as larvae develop.
LIFE HISTORY	Adult females deposit eggs inside dead palms, decaying plant material, soil with high organic matter content, and, occasionally, wooden structures. Eggs hatch in 11 days, and larvae begin feeding on surrounding organic material. Eleven to 15 weeks later, they enter the pupal stage and are immobile for approximately six weeks. Upon emerging, adults fly to a new tree, feed, and mate, sometimes mating just after their first feeding. Adults spend most of their time feeding on fresh leaves. Adult females live up to nine months, over which period they can lay up to 100 eggs. Multiple overlapping generations are common under favorable conditions, e.g. when no diapause is needed. Since coconuts occur in regions where there is no cold season and a minimal dry season, the beetles can be active and reproductive throughout the year.
MONITORING INFORMATION	
LURE ACTIVE INGREDIENT, SUBSTRATE & FIELD LIFE	Ethyl-4-methyloctanoate in a Coaster Lure Packet. Lure longevity: 30 Days 
TRAP TO USE	Panel trap 
MONITORING STRATEGY	In smaller fields, use one trap every 1 to 1 ½ acre. A minimum of two traps should also be used for fields of uneven topography. For larger fields (10 acres or greater) use 1-2 traps per five acres. Traps should be placed near the highest point of the plant. Traps should be checked weekly or more frequently, depending on pest population. Check with Cooperative Extension or Master Gardener for local information and recommendations.
CULTURAL & PHYSICAL CONTROLS	Managing the coconut rhinoceros beetle involves removing or destroying organic material that supports larval development such as decaying logs and stumps, removing dead palms, and removing piles of leaves and grass.

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