

## THE MOST DESTRUCTIVE PEST OF COCONUT – RHINOCEROS BEETLE

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Rhinoceros beetle (*Oryctes rhinoceros*) is major pest of coconut and also it infests other palm species. The larvae of this beetle can be seen in the white C-shaped form on farmyard manure and other composted materials in the farm. Beetles are the ones that can attack trees and cause damage. Let's take a look at the best management practices to control the rhinoceros beetle, which attacks and destroys the planted coconut trees at all stages of the year.

### LIFE CYCLE



Eggs are laid and hatch in 8-12 days. Larvae develop in decaying materials and grow for 82-207 days. Pupae are formed in the earthen cells underneath where the larvae feed and last up to 17-28 days. Adults feed tree crown portion and survive for 4-9 months. The beetles are active at night. Each female lays 50-100 eggs during its lifespan.



### DAMAGING SYMPTOMS

1. These beetles injure the young, growing tissues and feed on the exuded sap and leaving the characteristic V-shaped cut or diamond pattern in the emerging fronds of the tree.
2. On the bottom of the leaves can be seen circular holes and fibers that have been eaten and expelled by the beetles.
3. Due to the tough and hard body structure of the beetle, it is very challenging to control it, so it is necessary to adopt integrated crop protection methods to control it.

### MANAGEMENT PRACTICES

1. Farms should be kept clean. Larvae can be controlled by spraying the manure pits with 250 ml of *Metarhizium*

*anisopliae*, a bio fungicide in 750 ml of water.

2. Chop and burn decaying logs and destroy any rhinoceros beetles developing inside.
3. The beetles in the holes should be removed using a needle. Then neem seed powder and sand mixed in the ratio of 1:2 and apply 100g in the crown of the tree (or) Phorate 10 G granules can be filled in small perforated bags and placed on the crown of the tree.

### PREPARATION OF FERMENTED CASTOR SOLUTION

5 kg of castor seeds should be crushed and mixed with 5 liters of water and left to ferment for 10 days in a closed earthen pot. After successful fermentation, mix 2 liters of fermented solution and 3 liters of water in an earthen pot and bury 5 earthen pots per acre in the soil so that only the mouth is visible. Beetles are attracted to its smell and fall into the pots and die.



Apart from this, the use of solar lamp traps, 2 nos. per acre and the use of Rhino lure attractant traps, 5 nos. per acre will help to attract and destroy the beetles in an efficient way. Farmers can benefit by following the above integrated management system to control rhinoceros beetle.