

# Papaya mealybug on papaya

*Paracoccus marginatus*



*Paracoccus marginatus* on papaya (CABI)



*Paracoccus marginatus*, infested stalk (CABI)



Several female papaya mealybugs (1/16 to 1/8 inch long) and two web masses (Peggy Greb, USDA Agricultural Research Service, Bugwood.org)

Prevention	Monitoring	Direct Control
<ul style="list-style-type: none"> <li>• Completely remove and bury or burn crop residues</li> <li>• Space or prune trees to ensure that canopies do not touch. Destroy (burn) the pruned leaves and braches</li> <li>• Avoid the movement of planting material from infested areas to other areas</li> <li>• Destroy any existing ant colonies (ants can deter natural enemies of the mealybug)</li> <li>• Limit the movement of vehicles/machines through infested areas as this may spread the pest</li> <li>• Remove weeds/alternate host plants like Hibiscus, etc. in and nearby crop</li> <li>• Encourage the build up of natural enemies like ladybirds (e.g. <i>Cryptolaemus montrouzieri</i>), lacewings, and hover flies by reducing pesticide sprays</li> </ul>	<ul style="list-style-type: none"> <li>• Additional relevant crops: hibiscus, avocado, citrus, cotton, tomato, eggplant, peppers, beans and peas, sweet potato, mango, cherry, and pomegranate</li> <li>• Weekly monitoring and scouting to detect early presence of the papaya mealybugs. Look for:                         <ul style="list-style-type: none"> <li>• 0.3-4 mm long, yellowish, slightly flattened insects, oval-shaped with a white waxy coating. Males are 1 mm long, tend to be pink, have long antennae and wings covered with white wax powder.</li> <li>• Clusters of cotton-like masses on leaves, stems or fruit</li> <li>• Deformation of new growth, leaf yellowing, leaf curl, distorted/ small fruit, early fall of fruit</li> <li>• Fruit may be completely covered by a layer of mealybugs and wax secretions</li> <li>• Flowers may be distorted and fail to open</li> <li>• Ants which are harvesting honeydew from the mealybugs</li> <li>• Sooty mould formation due to honeydew excretions by mealybugs</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Natural enemies such as ladybirds (e.g. <i>Cryptolaemus montrouzieri</i>), lacewings, and hover flies feed on the mealybugs</li> <li>• Use sticky bands on the trunk or branches to control ants and enhance the effectiveness of natural enemies</li> <li>• Three parasitoids have been identified: <i>Anagyrus loeckii</i>, <i>Pseudoleptomastix mexicana</i> and <i>Acerophagus papayae</i></li> <li>• Chemical control is difficult since the waxy covering on the body of the mealybug protects it</li> </ul>

Note: Pesticides may be available to control this pest. Please check with the Ministry of Agriculture in your country to find out which pesticides are registered in your country and the local restrictions for their use.