

Pink Hibiscus Mealybug Confirmed in Texas

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The pink hibiscus mealybug, *Maconellicoccus hirsutus* an exotic pest first discovered in the US in Florida in 2002, has been recently detected in Nueces County Texas. This mealybug is a potentially serious pest of many ornamental and agricultural crops. It feeds by sucking plant sap on more than 300 species in 74 plant families. Minimizing the spread and potential damage by this species starts with a basic understanding of its biological characteristics.

Pink hibiscus mealybug (PHM) adults and nymphs look much like those of other mealybug species. Female adults have no wings and are covered with white wax. Adult males are winged and have two long waxy tails. Females may deposit eggs in waxy ovisacs (egg-masses) and young nymph- crawlers emerge to find new feeding sites, especially in tender new plant growth. They disperse in wind currents, by crawling from plant to plant, by movement of infested plant material or even when stuck on clothing.

PHM infestations can be distinguished from those of other species in several ways. Feeding causes new leaves to curl; young stems stop elongating and become thick giving a 'bunchy-top' appearance (Figure 1). A toxin that is injected into the plant when the mealybug feeds causes the damage. None of the other common mealybugs in Texas will cause this type of plant damage. They form dense colonies with heavy wax accumulations.

Like other mealybugs, PHM excrete honeydew, a byproduct of their feeding, which turns leaves shiny at first and then black as sooty mold grows on the accumulated honeydew.



Figure 1. Bunchy-top damage by Pink Hibiscus Mealybug. Photo: Edwin Myers, Port Aransas, TX

PHM has a reddish or pinkish body, one to two pairs of lateral wax filaments on the posterior end of the body, and two 'buttons' of white wax on the abdomen (Figure 2). Most other mealybugs have a fringe of wax filaments that surrounds their body.



Figure 2. Pink Hibiscus Mealybug adult. Note lack of wax filaments. Photo: D. Hall USDA-ARS

When pierced PHM bleeds a reddish-brown fluid. Eggs are bright pink to red in color (Figure 3).



Figure 3. Pink Hibiscus Mealybug infestation, eggs, nymphs and adult. Note pink colored eggs. Photo Jeffrey W. Lotz, Florida DOACS, Bugwood.org

The good news is that the United States Department of Agriculture has identified a number of predators and parasitoids that are effective in reducing PHM populations in landscapes. After the release of the parasitic wasps, pest populations are usually reduced to very low numbers. It is rare to see wild host plants with heavy PHM infestations in areas where parasitic wasps were released.

Control of PHM using contact insecticides may be difficult because colonies and egg masses are protected by wax accumulations. Systemic insecticides may provide some control but are not always effective because eggs and young crawlers can escape exposure. Insecticides are also toxic to natural enemies that help to keep populations under control. Long-term management of this pest will rely on biological control.

If you suspect a PHM infestation, use the above information to rule out common mealybug species to avoid unnecessary shipments. If you can not rule out infestation by other common species, contact your County Extension Agent or your regional Texas Department of Agriculture representative to determine if a sample is necessary for identification and confirmation. A good digital picture may be enough to rule out common mealybug species. The Texas Department of Agriculture is working to release beneficial insects in the areas where infestations are confirmed.

If PHM is confirmed in your area, avoid using broad spectrum insecticides that may negatively affect beneficial insects, released or naturally occurring. Insecticidal soaps and horticultural oils are the best options when applications are needed to prevent damaging population levels. If necessary, prune off the most heavily infested (damaged) plants or plant parts, place in sealed bags and place in the garbage.

DO NOT move infested plants or plant material as it facilitates spread of the pest to unaffected areas. Double bag any plant material that you dispose of before moving it off your property. PHM colonies may be guarded by ants that feed on the honeydew. These ants often prevent parasitic wasps from attacking their prey. Fire ant control may be necessary for the success of any pest control action.

For more information about PHM, visit <http://mrec.ifas.ufl.edu/LSO/PinkMealybug.htm> This website, maintained by the University of Florida, contains much of the current information on PHM host plants, natural enemies and control options.