

Sanitation and Minimizing Spread of Lebeck Mealybug

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Lebeck mealybug is an emerging pest in Florida that has rapidly spread to many citrus growing regions in the state. Determining effective ways to sanitize equipment and personnel is therefore important to prevent additional spread. We tested different concentrations of isopropyl alcohol sprays to kill first instar mealybug crawlers attached to clothing, and steam treatments at different temperatures to sanitize mealybug ovisacs on IPCs. For alcohol treatments, single sprays of 50%, 70%, and

90% isopropyl alcohol solutions resulted in significantly greater mealybug mortality compared to a water control. However, several mealybug crawlers remained alive and active after a single spray for all concentrations. Two sprays of each concentration resulted in almost 100% mortality or incapacitation. Steam treatments were conducted inside a steam cabinet on-station. When steam treating uncovered ovisacs, 100% mortality was achieved at 120° Fahrenheit (F) for greater than ten minutes, or at 130° F for greater

than five minutes. However, when ovisacs were covered in the center of folded up IPCs, 100% mortality was only achieved at treatments of 130° F for ten minutes or greater. To sanitize clothing, thorough coverage with commercially available concentrations of isopropyl alcohol led to near 100% mortality or incapacitation, and to sanitize equipment like IPCs, steam treatment at 130° F for at least ten minutes led to 100% mortality in all cases.

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