Little Fire Ants in Hawai'i Erin Bishop Oʻahu Invasive Species Committee Hawai'i Landscape Magazine – September/October 2016

Little fire ants (*Wasmannia auropunctata*) have become one of the top priority pests for invasive species management agencies and organizations in Hawai'i. First detected in the Puna District of Hawai'i Island in 1999, these tiny ants have been hitchhiking around the state. They have been discovered or intercepted on all the main Hawaiian Islands except Moloka'i. While they are only known to be established on Hawai'i Island, little fire ants pose a BIG threat to the entire state.

Native to Central and South America, little fire ant (LFA) have been spreading across the Pacific region in cargo and commodities for the past century. In areas where LFA are well established, the impacts are great. The presence of LFA is attributed to significant reduction in biodiversity and species richness, decreases in agricultural activity, as well as increasing incidents of painful stings that can drive people and pets indoors.

In an effort to stop the spread of LFA in Hawai'i, the Hawai'i Department of Agriculture (HDOA), the Hawai'i Ant Lab (HAL), and the county invasive species committees have been conducting early detection surveys of nursery and garden centers. Known infestations are being treated, and implementation of community programs and training workshops for Big Island residents are well underway.

Island Updates:

Hawai'i Island -

Based in Hilo, the Hawai'i Ant Lab has created research-based strategies for localized eradication of little fire ants. While island-wide eradication of LFA on Hawai'i Island in not feasible, HAL is providing ant management training workshops for residents. These workshops teach homeowners the basics of pesticide safety, mixing, and application. The Big Island Invasive Species Committee (BIISC) has launched a new educational program to engage communities in a collaborative effort towards the management of LFA. BIISC Communication Director, Franny Brewer is pleased with the sessions' attendance, with over 400 residents participating just this summer alone. "Our focus is on encouraging cooperative action amongst neighbors, based in a spirit of laulima and kuleana. We feel strongly that coordinated action can significantly reduce LFA populations and impacts on the Big Island. "Franny Brewer (BIISC).

Oʻahu -

The two known populations in Waimanalo and Mililani Mauka were first detected in 2014. The residents of Mililani Mauka were crucial to the success of eliminating the infestation there. A resident surveyed the property after being stung and brought samples to HDOA. A subsequent survey of the neighborhood determined approximately 20 properties were infested. It's been more than a year since any LFA have been detected at Mililani Mauka. The success of the treatments are credited to the discovery of the infestation while it was relatively small. Equally important, all the neighbors allowed HDOA staff on their property to test and treat properties.

The Waimanalo location was overgrown with vegetation, making treatment more difficult. After the initial treatment cycles, the only LFA found were high in a single tree. HDOA, HAL, and the O'ahu Invasive Species Committee continued treatment in and around the tree, and it's now been about 6 month since any ants have been detected. Both sites will continue to be monitored for at least two years to ensure all populations have been successfully eradicated.

Maui -

The first detection of LFA was in Waihe'e, Maui. The infestation area was treated and with no LFA detected, is now being monitored. However Huelo and Nāhiku have active infestations. Huelo is a relatively small area and treatments are currently underway. The Nāhiku infestation poses serious challenges. The infestation area is approximately 35 acres of dense forests and extreme terrain. Fast running streams transect the area and aid ants in "rafting" downstream, rapidly spreading the infestation. HDOA, HAL and the Maui Invasive Species Committee are treating roadsides and nearby buildings as well as working to develop a treatment strategy for the forested area.

Kaua'i -

Along with the earliest detection in Puna in 1999, LFA was also detected later that same year in Kalihiwai. HDOA quickly treated the infested trees and surrounding area. The population was thought to be eradicated, but in 2002 a super-colony was discovered. The steep cliff faces in the area proved challenging, but continued treatment and monitoring by HDOA, HAL and the Kaua'i Invasive Species Committee have brought LFA to undetectable levels. Monitoring surveys and treatment will continue as needed.

Interceptions of infested materials is common, but not everything can be inspected and LFA tend to "hide out" when materials are being moved. Checking materials, especially those known to come from infested areas help stop the ant from spreading.

This past March, a shipment of shingles from Hilo arrived on Maui. Before delivering them to Hana, an alert landscaper quickly checked and found them to be completely infested with LFA. These proactive measures prevented a potentially serious infestation in the remote community. "This demonstrates how important it is to check material coming from infested areas as little fire ants can move on just about anything." Says Lissa Fox Strohecker, Education and Outreach Specialist with the Maui Invasive Species Committee (MISC).

Raising public awareness and engaging residents to conduct early detection surveys are essential. When infestations become large, the costs increase dramatically and chances of successful eradication are lower. Stopping the spread of LFA is being addressed by a multi-agency response. The public is asked to aid in the effort by testing their property at least once a year and report any suspicious ants to the Hawai'i Department of Agriculture. For more information and survey instructions, visit <u>www.stoptheant.org</u>.