



DIVISION
of
PLANT INDUSTRY

AIR POTATO BIOLOGICAL CONTROL PROGRAM TRANSITION

The leaf-feeding air potato beetle *Lilioceris cheni* was introduced into the US to control the invasive air potato vine (*Dioscorea bulbifera*). For over ten years, the air potato biological control program has been a collaborative effort among the Florida Department of Agriculture and Consumer Services' Division of Plant Industry (FDACS DPI), the United States Department of Agriculture's Agriculture Research Service (USDA ARS) and Animal and Plant Health Inspection Service (USDA APHIS), and the University of Florida's Institute of Food and Agricultural Sciences (UF IFAS). During this time, close to one million air potato beetles have been released in all 67 Florida counties, as well as numerous counties in Alabama, Georgia, Louisiana, Mississippi, and Texas.

When biological control agents become self-sustaining and firmly established in the landscape, laboratory production and release is no longer necessary. As a result of ongoing research, we have determined *L. cheni* beetles are now established throughout these states, returning on their own each summer to air potato infestations. Now that we have conclusive evidence that benchmark has been reached, the *L. cheni* rearing program will conclude in fall of 2022.

The goal of the air potato biological control program has always been to reduce the ecological pressure of the invasive air potato vine in Florida. With the end of the current mass rearing program, FDACS DPI will shift focus to another federally approved biological control agent that will complement the existing *L. cheni* populations. This agent is a related beetle, *Lilioceris egena*, which specializes in feeding on bulbils rather than leaf tissue. As this program is still in its earliest stages, the new agent is not yet available for widespread public release. We anticipate statewide availability within a few years.

FDACS DPI would like to thank all the Florida residents who have participated in the air potato biological control program over the last decade and made it a success. With the cooperation and contributions of the public, it has become one of the most successful weed biological control programs in the state. As we grow the new rearing program, we will again enlist your help to identify air potato infestations and release and establish the beetles.
