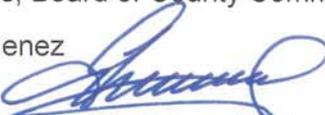


Date: April 21, 2016

Agenda Item No. 2(B)1
May 17, 2016

To: Honorable Chairman Jean Monestime
and Members, Board of County Commissioners

From: Carlos A. Gimenez
Mayor 

Subject: Report on Recommendations to Protect County's Avocado Industry from Red Bay
Ambrosia Beetle/Laurel Wilt Disease – Directive 151887

The following report is pursuant to Resolution No. R-880-15, adopted by the Board of County Commissioners (Board) on October 6, 2015, which directed the County Mayor or County Mayor's designee to develop a program, with input from the Agricultural Practices Advisory Board, to protect the County's avocado industry by encouraging property owners to remove trees infected by Laurel Wilt Disease and educating property owners on the signs of the disease. Furthermore, Resolution No. R-880-15 directed the County Mayor or County Mayor's designee to make recommendations on enforcement mechanisms to combat Laurel Wilt.

Background

The red bay ambrosia beetle, which carries the Laurel Wilt fungus, bores into the bark of a host tree and infects it with the fungus, which grows throughout the tree's sapwood. In response, the tree tries to block the spread of the fungus by preventing the flow of water and nutrients within it, which ultimately kills the tree a few weeks after inoculation. This disease is a tremendous threat to both the natural environment and the agricultural industry. The disease quickly kills trees in the lauraceae family including avocado trees and swamp bay trees.

The red bay ambrosia beetle was first detected in 2002 in Port Wentworth, Georgia. These beetles, believed to have entered the United States on wood packing material from Asia, have spread north and south rapidly, and reached Florida in 2005. The first beetle found in Miami-Dade County was in February 2010 inside of an insect trap maintained by Florida Department of Agriculture and Consumer Services (Florida Department of Agriculture) in the area just east of the Bird Drive Basin. Subsequently, on February 25, 2011, the Florida Department of Agriculture announced that Laurel Wilt was confirmed in the western edge of Miami-Dade County in the Bird Drive Basin. Since then, the fungus has caused the death of nearly all of the swamp bay trees in that area and spread rapidly to the Everglades.

In May of 2012, it was confirmed that the beetle, and the Laurel Wilt it carries had infested and killed trees in commercial avocado groves in the vicinity of SW 184 Street between SW 147 Avenue and 177 Avenue in South Miami-Dade County. Since this initial attack on commercial avocados, the disease has been responsible for the death of more than 11,000 avocado trees and the losses continue to mount. It is important to note that avocado trees make up approximately 12 percent of the tree canopy in the County. In addition, it has been discovered that the fungus has also been picked up and moved by other ambrosia beetle species present in the area, creating more vectors for disease transmission. Areas north of Miami-Dade County, where the beetle and disease are prevalent, have also lost up to 90 percent of their host trees since infestation.

This beetle and disease have the potential to decimate the avocado industry in Miami-Dade County, which generates more than \$50 million a year in wholesale sales, covers more than 7,500 acres, and sustains approximately 2,000 jobs.

In November 2008, the Board passed Resolution No. R-1436-08, urging Congress, the United States Department of Agriculture (USDA), the Florida Department of Agriculture, and the State Legislature to take all steps necessary to address and prevent the spread of the beetle and Laurel Wilt in Miami-Dade County. Since 2008, funding provided from the USDA, the Florida Department of Agriculture, and the industry for research and mitigation of this disease has exceeded \$12 million.

There is no known cure once a tree has been infected with the disease. The management technique recommended by the USDA, the Florida Department of Agriculture, the University of Florida, and the Florida Avocado Administrative Committee is the complete removal and destruction of the dead infected tree, as well as prophylactic fungicide injections to the trees immediately surrounding the infected tree. Unfortunately, there are a few land owners that have chosen not to follow the recommended procedures, whose properties now harbor large amounts of dead and dying trees infested/infected with the beetles and Laurel Wilt. The lack of consideration and land management in groves owned by these often absentee landowners has allowed the proliferation of Laurel Wilt carrying beetles to thrive and infest many other properties in Miami-Dade County.

In August of 2015, a letter was sent out by Miami-Dade County Property Appraiser Pedro Garcia to all properties with an avocado classification that receive the agricultural classification for tax purposes, stating that growers who have the disease on their property but are taking no action may face the loss of the classification on areas of their property affected by the disease due to non-commercial use. This notice also contained contact information for questions regarding the disease and appropriate management techniques. An information insert from the University of Florida's Institute of Food and Agricultural Science describing recommended control actions for the disease and contact information was also included. It is important that this disease not be viewed in the same manner as Citrus Canker, which is a disease that does not kill trees. Laurel wilt is extremely lethal and once infected there is no evidence that the host tree can survive.

Recommendation

It is recommended that County staff continue working closely with state and federal agricultural officials and industry leaders to accomplish disease management. Current recommended management techniques call for continued aerial and ground reconnaissance, destruction of infested/infected trees, and treatment of surrounding healthy trees by their owners.

The following specific recommendations on actions that can be taken by Miami-Dade County to assist in combating this disease were developed with significant input from Miami-Dade's Agricultural Practices Advisory Board, the Florida Avocado Administrative Committee, the University of Florida's Institute of Food and Agricultural Sciences Tropical Research and Education Center, the Florida Department of Agriculture, the University of Florida/Miami-Dade County Cooperative Extension Service, and the USDA:

- Adopt changes to Chapter 11D of the County Code to provide the same opportunities for the removal and destruction of dead trees infested with the beetles and Laurel Wilt disease, as was done with palms trees and lethal yellowing disease;
- Continue lobbying efforts to ensure federal and state funding of research and mitigation programs;
- Continue to educate the public on this issue through the programs provided by the University of Florida/Miami-Dade County Cooperative Extension Service in the Parks, Recreation and Open Spaces Department;
- Work with the Miami-Dade County Property Appraiser's office to identify infested/infected properties whose owners who are not following customary commercial agricultural practices, but are receiving the agricultural property tax benefit; and
- Increase illegal dumping monitoring in the area to eliminate the continued threat of invasive insect and disease transmission posed by this activity.

Honorable Chairman Jean Monestime
and Members, Board of County Commissioners
Page 3

In accordance with Ordinance 14-65, this report will be placed on the next available Board meeting agenda.

If you have any questions or concerns, please contact Charles LaPradd, Agricultural Manager, Department of Regulatory and Economic Resources, at 305-971-5091 or lapradd@miamidade.gov.

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