



Board Agenda Item 30

DATE: December 14, 2021

TO: Board of Supervisors

SUBMITTED BY: Melissa Cregan, Agricultural Commissioner/Sealer of Weights and Measures

SUBJECT: Revenue Agreement with the Regents of the University of California for the Invasive Shot-Hole Borers Program Grant

RECOMMENDED ACTION(S):

Approve and authorize the Chairman to execute a Revenue Agreement with the Regents of the University of California for the Invasive Shot-Hole Borers Program Grant effective upon execution by all parties through March 31, 2022 (\$10,763).

There is no increase in Net County Cost as approval of the recommended action will allow for the County to enter into a Revenue Agreement with the Regents of the University of California to reimburse the Department's costs of trapping to detect Invasive Shot-Hole Borers (ISHB). If approved by your Board, the recommended action authorizes the Chairman to execute the proposed Agreement. Once the Revenue Agreement is executed by the Chairman and the Regents of the University of California, the documents become the final Agreement between the County and the University of California, effective upon execution by all parties. This item is countywide.

ALTERNATIVE ACTION(S):

Should your Board not approve the recommended action, the Department will not receive revenue from the Regents of the University of California for this detection program.

FISCAL IMPACT:

There is no increase in Net County Cost associated with the recommended action. Fresno County will receive approximately \$10,763 in revenue from the Regents of the University of California to fund this program. Sufficient appropriations and revenues are included within the FY 2021-22 Adopted Budget for Department of Agriculture Org 4010.

DISCUSSION:

ISHB are a group of ambrosia beetles, the species of which are visually indistinguishable from each other and can only be identified through DNA analysis. The two species of ISHB known to be present in California are the polyphagous shot-hole borer (PSHB) and the Kuroshio shot-hole borer (KSHB). PSHB are established in Los Angeles, Orange, and Riverside Counties and have spread to San Bernardino, Ventura, and Santa Barbara Counties. A single PSHB was caught in a trap in Santa Cruz County in 2014. KSHB was confirmed in a commercial avocado orchard and landscape trees in San Diego County. A large infestation was identified in the Tijuana River Valley. KSHB is currently present in Orange and Santa Barbara Counties with a single beetle trapped in San Luis Obispo County in 2016.

ISHB bore into trees creating channels or galleries, which is where they spend most of their lives. They do not eat wood but introduce and feed on a symbiotic fungus which they "farm" within their galleries. Once established, the fungi colonize the wood beyond the gallery walls, which blocks the flow of water through the tree causing stress and dieback. This resulting disease is known as Fusarium dieback (FD). Fifteen species of trees are known to be susceptible (may cause tree death) to the ISHB-FD complex, while another fifty-one tree species have been identified as being less susceptible (causes branch dieback). All of these trees are considered ISHB reproductive hosts.

As estimated by the USDA Forest Service, if just 50% of the ISHB-FD complex susceptible tree species died in Southern California, the approximate cost for removing and replanting the trees with similar species and size would be \$15.9 billion.

Trees native to California and Fresno County that may be killed by the ISHB-FD complex include big leaf maple, box elder, California sycamore, Fremont cottonwood, black cottonwood, valley oak, and black willow. These species occur along streams, waterways, foothill areas, mountain areas, and at the transition between the foothills and mountains of Fresno County. Infestation by ISHB and the resulting ISHB-FD complex resulting in the death of these trees could exacerbate the wildfire danger caused by drought and other wood boring beetles. Many landscape trees could also be affected.

Currently, avocado and black mission figs are the only fruit bearing trees that are considered reproductive hosts of ISHB. These trees are considered less susceptible and branch dieback would be expected. However, the entire ISHB reproductive host list is unknown, and many more trees may host ISHB attack. Other agriculturally important trees such as almond, stone fruits, pistachio, and walnut may be attacked by ISHB.

The Department will be reimbursed for providing trapping data. The purpose of this trapping program is to determine if ISHB are present in Fresno County.

ATTACHMENTS INCLUDED AND/OR ON FILE:

On file with Clerk - Agreement 840473 with the Regents of the University of California

CAO ANALYST:

Moises Mendoza