Kauai Coffee Berry Borer (KISC)

The following project description was shared by the applicant. The description has been edited to remove applicant name and identifiable information.

PROJECT DESCRIPTION
Provide a description of the proposed project including a summary of mitigation plans to address COVID-19 work, social distancing and other relevant restrictions.

The coffee berry borer (CBB), Hypothenemus hampei, was first detected on Kauai in September 2020. CBB is one of the most devastating insect pests of coffee plants and is a serious economic threat to Kauai coffee growers. Currently, CBB is only known to be located in the Kalaheo and Lawai area. This project proposes the unique opportunity for the County of Kauai to provide funding for the necessary island-wide early detection and rapid response efforts to attempt to successfully contain this new destructive pest. The goal of this project is to survey and monitor for CBB at all coffee plant locations across Kauai including small coffee farms and backyard coffee growers, as well as, wild and naturalized coffee. Detecting CBB infestations early increases the chances of successfully controlling and containing CBB before it becomes widespread across Kauai impacting all coffee.

This innovative project combines the proven integrated pest management strategies developed on Hawaii Island, while building a long-term community collaboration program and casting an island-wide net for monitoring and surveying all coffee plants on Kauai with focus on small coffee farms, backyard coffee crops, and wild/naturalized coffee plants.

The health and welfare of staff and the community is our highest concern. The proposed work will be conducted in accord with KISC’s COVID-19 Work and Safety Plan, which was developed to help minimize potential staff and public exposure and risk of infection by the coronavirus. The protocols include safety requirements for general operations, field operations, and office & baseyard social distancing and sanitation guidelines. The KISC Covid-19 plan is updated regularly to follow all updated social distancing and sanitation guidelines.

PROJECT OUTPUTS AND OUTCOMES
Describe and identify the deficiency, problem or need that will be solved by this project

In September 2020, the coffee berry borer (CBB) was first detected on Kauai and is currently only known to be located in the Kalaheo and Lawai area. CBB is one of the most devastating insect pests of coffee plants, causing severe economic damage to coffee growers worldwide. CBB is a small beetle that bores into the coffee “cherry” to lay its eggs; larvae then feed on the coffee bean causing loss of marketable yield and quality. Once established in a coffee crop, CBB infestation management creates large financial hardships for the grower. “In Hawaii, the estimated economy-wide impact due to CBB is approximately $21M annually.” [1]

Early detection of CBB presence in a new location is key to successfully controlling and containing the infestation and mitigating the subsequent damage. Currently, CBB survey and control efforts on Kauai include delimitation surveys in the immediate area surrounding the known infestation and immediate control. Due to agency capacity, early detection surveys

Explain what is new, different, and innovative about the proposed project compared to past or current projects, including similar projects sponsored by other organizations. If applicable, how the proposed project will support COVID19 Economic Recovery.

Coffee Berry Borer (CBB) is a new threat to the island, discovered on Kauai for the first time in 2020. Current response efforts by multiple partners focus on surveys of larger coffee farms and monitoring in the area surrounding the known infestation. There are currently few or limited surveys outside the known infestation area due to agency capacity.

This innovative project builds a long-term community collaboration program and implements an island-wide survey program on all coffee plants on Kauai with a specific focus on small coffee farms, backyard coffee plantings, and wild/naturalized coffee plants. Adding a county-wide monitoring program into the Kauai CBB response effort is new and enhances the chances of successfully controlling and containing CBB before it causes widespread damage across Kauai. Year-round widespread monitoring traps and sampling surveys in small coffee plantings and wild coffee has not been done on Kauai. Public engagement techniques will help identify early new infestation sites that might otherwise be missed. The proposed island-wide comprehensive survey provides the unique opportunity to bring proven integrated pest management strategies to Kauai before CBB becomes widespread and creates economic loss and financial hardships to the Kauai coffee growers.

Describe how the project's anticipated outcomes and impact (what the project will change) help to achieve both short term economic development and to support the County's long term vision for more economically diverse and sustainable future.

An uncontrolled island-wide CBB infestation would reduce the potential for future growth in the coffee industry on Kauai and also cause financial hardship to individual coffee growers. This project seeks to help support a sustainable future for Kauai by helping to reduce the risks of financial hardships posed by this newly detected threat. It will also assist in implementation of IPM control techniques, which are grounded in principles of economic and environmental sustainability.

The first anticipated outcome is a defined geographic scope of coffee berry borer presence on Kauai. Detecting CBB early before there is a widespread infestation increases the chances at successfully controlling and containing the infestation on island. The second anticipated outcome is helping mitigate the financial impact to coffee growers by developing a comprehensive long-term community collaboration program that incorporates integrated pest management strategies early in the CBB infestation.