DAVID Y. IGE
Governor

JOSH GREEN
Lt. Governor

PHYLLIS SHIMABUKURO-GEISER
Chairperson, Board of Agriculture

MORRIS ATTA
Deputy to the Chairperson

State of Hawaii
DEPARTMENT OF AGRICULTURE
1428 South King Street
Honolulu, Hawaii 96814-2512
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TESTIMONY OF PHYLLIS SHIMABUKURO-GEISER
CHAIRPERSON, BOARD OF AGRICULTURE

BEFORE THE HOUSE COMMITTEE ON AGRICULTURE

MARCH 12, 2021
10:00 A.M.

SENATE BILL NO. 855 SD1
RELATING TO COFFEE PEST CONTROL

Chairperson Hashem and Members of the Committee:

Thank you for the opportunity to testify on Senate Bill 855 SD1, relating to coffee pest control. This bill extends the pesticide subsidy program to June 30, 2023 and extends the position of the pesticide subsidy manager to June 30, 2024. The bill also expands the pesticide subsidy program to allowing reimbursements to growers for the purchase of biopesticides and fungicides to be used against the coffee berry borer and the coffee leaf rust. The pesticide subsidy program manager would process the applications for both pesticides. The Department supports this measure and offers the following comments. The pesticide subsidy program is currently funded by the pest inspection, quarantine, and eradication special fund. The department understands that the future of the special fund is uncertain, and we are also unsure whether the existing expenditure ceiling is adequate to fund and effectively perform the additional program responsibilities proposed in this measure.

Invasive species are a primary threat to Hawaii's agriculture and economy. The coffee berry borer (*Hypothenemus hampei*) is a significant coffee pest in Hawaii and the world. The extension of the subsidy program and program manager position will allow the Department to continue to support coffee farmers by partially offsetting the costs of purchasing certain pesticides that contain *Beauveria bassiana* as an active ingredient, and certain fungicides, such as Priaxor Xemium in order to control the coffee berry borer and the coffee leaf rust to mitigate the damage these organisms cause to the coffee beans and plants.

Thank you for the opportunity to testify on this measure.

Island Fresh

UNIVERSITY OF HAWAIʻI SYSTEM
Legislative Testimony

Testimony Presented Before the
House Committee on Agriculture
Friday, March 12, 2021 at 10:00 a.m.
By
Nicholas Comerford, Dean
College of Tropical Agriculture and Human Resources

SB 855 SD1 – RELATING TO COFFEE PEST CONTROL

Chair Hashem, Vice Chair Perruso, and members of the House Committee on Agriculture:

Thank you for this opportunity to testify in strong support of SB 855 SD 1 relating to the coffee berry borer (CBB).

According to the 2018 State Agriculture overview published by the U.S. Department of Agriculture, Hawaiʻi produced 5.4 million pounds (green weight) of coffee grown on 7,100 harvested acres, with an average yield of 1.92 tons/acre, at a unit price of $19.40/lb., for a value of $50.16 million. These data show the high value of this crop to Hawaiʻi agriculture since that value is based on using just 0.65% of farm acres operated.

CBB is found in most coffee growing countries of the world and was discovered in Kona, Hawaiʻi in 2010. It has the potential to be a devastating disease for this industry. It is established on Hawaiʻi Island, and can be found now on other islands. CBB is endemic to Central Africa. It belongs to a subfamily of beetles that houses some of the most important pests world-wide. Female beetles bore into the berry and lay eggs inside the seed and the brood then feasts on the coffee seed. As this phase of the CBB life occurs inside the berry and seed, it can be difficult to control.

An integrated pest management program (IPM) developed Best Management Practices to control CBB. Collaborative research has shown that sanitation along with biocontrol can be effective. Cooperative Extension Agents with the College of Tropical Agriculture and Human Resources (CTAHR) at the University of Hawaiʻi at Mānoa (UHM) have estimated pre-pandemic that about 80% of coffee farmers are familiar with the IPM program. CTAHR Cooperative Extension Agents further estimate that the IPM program has directly saved more than $11 million in farm gate value, and saved another $11 million in efforts to control the spread of CBB. Realizing the direct and indirect effects highlights the value that this IPM program has for the coffee industry and the state of Hawaiʻi.

The IPM program uses an insecticide (pesticide), known as a mycoinsecticide, to control the borer. A fungus, *Beauveria bassiana*, is a biological control material and is bought commercially. The Hawai‘i Department of Agriculture (HDOA) was empowered in the past to develop and manage a CBB pesticide subsidy plan, allowing as much as $600/acre for the grower. The basic approach of this bill is to maintain parts of that program into the future, until 2026.

The IPM program has been shown to be effective in the control of CBB. There is concern that without a full functioning subsidy program, efforts to apply IPM would be reduced; thereby reducing the on-farm and regional effectiveness of the strategy. A survey of coffee growers indicated that nearly 38% of growers would reduce the rate of the pesticide applied if the program was detrimentally affected. It is reasonable to assume that this would negatively affect the control and spread of CBB.

Given the estimated $22 million/year effectiveness of the IPM program that includes a biological insecticide, we are in strong support of SB 855 SD 1 and will continue, through Cooperative Extension, to educate and train growers on the use of the IPM program. We thank the committee for the opportunity to submit testimony on this bill. We understand that in this time of budgetary challenges, we also defer to HDOA as to their priorities and budgetary requirements.

P.O. Box 253, Kunia, Hawai'i 96759
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e-mail info@hfbf.org; www.hfbf.org

March 12, 2021

HEARING BEFORE THE
HOUSE COMMITTEE ON AGRICULTURE

TESTIMONY ON SB 855, SD1
RELATING TO COFFEE PEST CONTROL

Conference Room 325
10:00 AM

Aloha Chair Hashem, Vice-Chair Perusso, and Members of the Committee:

I am Brian Miyamoto, Executive Director of the Hawaii Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,800 farm family members statewide and serves as Hawaii's voice of agriculture to protect, advocate and advance the social, economic, and educational interests of our diverse agricultural community.

The Hawaii Farm Bureau supports SB 855, SD1, which extends the sunset date for the coffee berry borer pesticide subsidy program and the program manager position and includes coffee leaf rust control as part of the pesticide subsidy program.

Coffee is one of Hawaii's signature crops; one that helps bring fame and tourists to Hawaii. Coffee Berry Borer (CBB) threatens the entire Hawaiian coffee industry. While the full tally is yet to be made, farms on Hawaii Island have experienced deep losses. Some have failed. Moreover, large quantities of coffee have been downgraded due to insect damage, reducing the value of the remaining crop. CBB is a serious threat to Hawaii's agriculture industry and the state's economy. While CBB is battled worldwide, no other coffee-growing origin shares Hawaii's high labor costs and restrictions on pesticides that may be used elsewhere to fight this destructive pest. This places the industry at a competitive disadvantage when compared to the rest of the coffee-growing world.

Fighting CBB is a priority in other coffee-producing countries. The USDA has expressed its support targeted toward research, education, and mitigation. The industry's response has been immediate and multi-faceted. A non-profit CBB task force has been formed, including growers, processors, HDOA, UH, USDA and county government. CTAHR and HDOA have been responsive and effective in their combined efforts. The industry has committed countless private-sector dollars and has leveraged both State and Federal funds.

A new threat, *Hemileia vasatrix* (coffee leaf rust), threatens the entire Hawaiian coffee industry. Coffee Leaf Rust (CLR) is known to spread rapidly and leads to defoliation and tree death that can result in up to 70% loss of yield. CLR has already been identified on Hawaii Island, Maui, and Oahu. CLR is the most destructive coffee disease in the world and can kill an entire farm in a matter of weeks. This fungus is a serious threat to Hawaii's agriculture industry and the state's economy.

The extension of the CBB funding and the inclusion of CLR in the Pesticide Subsidy Program should be viewed as a modest investment in one of the state's largest and most important agricultural crops.

Thank you for the opportunity to testify on this measure of great importance.

SB-855-SD-1
Submitted on: 3/10/2021 3:33:05 PM
Testimony for AGR on 3/12/2021 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
James Kimo Falconer	MauiGrown Coffee, Inc	Support	No

Comments:

Please support the coffee industry by approving SB-855.

Extending the CBB subsidy funding is especially helpful now that we are battling the Coffee Leaf Rust fungus in addition to CBB. Every little bit helps us.

Mahalo.

SB-855-SD-1
Submitted on: 3/10/2021 7:03:39 PM
Testimony for AGR on 3/12/2021 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Bruce Borker	Rancho Aloha	Support	No

Comments:

Chair Hashem, Vice-Chair Perruso, and Members of the Committee:

I am a coffee farmer in the North Kona District of Hawaii County and I am a member of the Board of Directors of the Kona Coffee Farmers Association.

I strongly support SB855 to extend the HDOA's subsidy program for control of Coffee Berry Borer (CBB) and to add subsidies to combat Coffee Leaf Rust (CLR) to the existing program.

This subsidy program will encourage farmers to adopt measures to control CBB and CLR—and help to preserve the economic viability of coffee as a commercial agricultural crop in Hawaii.

Also, in order to prevent further introduction of coffee pests and diseases into Hawaii, I request that this committee add provisions to the bill to require and fund an investigation by the HDOA into how CBB and CLR were brought into the state—and mandate the HDOA to develop a vigorous program (similar to California's protections for its farmers) for preventing entry of invasive pests and diseases in the future.

When we fly to the Mainland, our luggage is scanned, and fruits and vegetables are removed to protect Mainland farmers. When we fly into Hawaii, it is the "honor system" with amnesty bins. HAWAII NEEDS TO DO A BETTER JOB OF PROTECTING THE INTERESTS OF HAWAII FARMERS.

Respectfully submitted,

Bruce Corker

Holualoa, Hawaii County

Hawaii Coffee Association
PO Box 168, Kealakekua, HI 96750

HOUSE COMMITTEE ON AGRICULTURE
March 12, 2021

RE: Testimony in Support of SB855 SD1

Aloha Chair Hashem, Vice Chair Perruso and members of the committee,

I am Chris Manfredi, President of Hawaii Coffee Association (HCA).

The Hawaii Coffee Association strongly supports SB855 SD1. The CBB Pesticide Subsidy Program has been a success story for Hawaii's coffee producers. It helps offset some of the high costs of coffee production, making Hawaii more competitive with growers located across the globe.

Moreover, the HCA welcomes the additional support offered to control and mitigate the impacts of Coffee Leaf Rust.

Coffee leaf rust (CLR) has been discovered on Hawaii Island, Maui, Oahu and Lanai. CLR poses a devastating threat to Hawaii's coffee industry. CLR is known to spread rapidly and leads to defoliation and tree death. The discovery of Coffee Leaf Rust in Hawaii is an emergency and requires an emergency response.

Coffee is ranked by USDA as Hawaii's second highest value crop, second only to seed corn. The typical coffee farm in Hawaii is a small family farm, yet the largest farm in the state is also a coffee farm. For more details regarding Hawaii's coffee industry impacts on the State's economy, please see the attached document: *What's at Stake: The Loss of Hawaii's Coffee Industry, A Major Economic Driver*

In response, the HCA has been coordinating weekly conference calls among HDOA, USDA, APHIS, PBARC UH CTAHR, HARC, lawmakers, other commodity groups and industry leaders. We have developed a Strategic Plan and working on its implementation.

We are working on approvals for systemic fungicides for use on coffee that are already approved for use on other food crops. Our entire industry is working collaboratively to accelerate this process. We are also working to source, evaluate, import and distribute rust resistant varietals that are successfully grown elsewhere. We are working with USDA and HDOA to streamline the importation and quarantine process for these rust resistant varieties and to build capacity of quarantine facilities.

Like so many other industries, ours is reeling in the wake of COVID. Our member surveys indicate that most producers' sales were severely impacted, but unlike many other industries ours is layered with a devastating coffee disease that threatens our existence.

Thank you for the opportunity to testify and for your support for Hawaii's coffee and this measure.

Hawaii Coffee Association
PO Box 168, Kealakekua, HI 96750

What's at Stake: The Loss of Hawaii's Coffee Industry, A Major Economic Driver

As growers of the #2 crop in the State, we are just under 1,500 strong who tend more than 10,000 acres. The value of our coffee is second only to Hawaii's seed crops[i]. For the 2019-2020 season, Hawaii's unroasted coffee was valued at $102.91 million[ii], while its roasted value was more than $148.48 million.

Now, we're facing the most destructive coffee disease in the world: Coffee Leaf Rust (CLR), a fungus that can kill an entire farm in a matter of weeks. Annually, CLR causes $3 billion in damage and lost income around the world.

In Hawaii, the stakes are higher than elsewhere. While most other coffee-growing regions have planted rust-resistant varieties, all of the ones commercially grown in Hawaii are not resistant. And the best fungicides used to fight this disease have not been approved here.

CLR has been identified on Hawaii Island, Maui, Oahu and Lanai. Its spores are spread freely by wind, workers, rain, equipment and tourists. As a result, farmers are facing defoliation and a loss of yield up to 70% or more.

To help save our industry, as well as the communities and families that depend on it, we need State, Federal and private support and we need it NOW.

Without action, we stand to lose hundreds of millions of dollars in Hawaii's economy – a contribution that far exceeds the value of the beans themselves. To grow our coffee, we hire thousands of workers and buy from local industries such as transportation and vendors of agricultural supplies. This so-called "downstream economic impact" is valued at about $210.97 million[iii].

Then there is the "upstream economic impact" of Hawaiian coffee, which is unquantified. Compared to most other crops grown here, coffee offers two advantages: 1) Its worldwide popularity boosts the tourism potential of events such as the Kona Coffee Festival. 2) It is shelf stable. That makes Hawaiian coffee a major attraction for the souvenir market, drawing tourists to shops, cafes and agritourism operations statewide. In turn, these visitors create more worldwide demand for Hawaiian coffee once they return home. For example, foreign exports of coffee from Hawaii, valued at $9.20 million[iv] in 2019, are an ongoing international advertisement for the Hawaii islands.

The economic losses from CLR would have an outsized impact in rural areas, where few other industries exist. Remember the collapse of the local sugar industry? We can expect similar results: dramatically increasing unemployment – especially of historically underserved and minority

populations – accompanied by increasing crime and drug use. Not to mention the harm to almost 200 years of coffee-growing history and the cultural heritage of our islands.

What We Need:

- Statewide approval of the most effective CLR fungicides, and subsidies for famers to purchase them.
- Support for development of the best CLR-management strategies in Hawaii, as well as support to educate farmers of them.
- Support for research of the best CLR resistant varieties that will maintain the quality of Hawaii coffees. Also support for the importation, propagation and distribution of CLR-resistant varieties, including expanded plant-quarantine facilities. (This is a 5-10 year project.)
- Support for farmers to replace their existing fields with rust-resistant varieties.
- *Support for other ways to build capacity and resilience within farm communities.*

Contact:

- Chris Manfredi, President, Hawaii Coffee Association president@hawaiicoffeeassoc.org
- Suzanne Shriner, Administrator, Synergistic Hawaii Ag Council suzanne@shachawaii.org

[i] $50.16 million vs $105.7 million for Seed Crops (including seed corn), in 2018. Source: State of HI, HDOA Market Analysis and News Branch "Top 20 Agr Commodities Produced: State of Hawaii, 2018

[ii] $102.91 million. Source: USDA-NASS. Jan 2021. "Coffee".

[iii] Using multiplier of 2.05. Correspondence from HDOA chair P. Shimabuku to USDA Secretary S. Perdue, dated November 19, 2020

[iv] $5.33 million in roasted coffee from Hawaii + $3.87 million in unroasted coffee from Hawaii. Source: USDA Global Agricultural Trade System. 2019 data.

State of Hawaii
Department of Agriculture
Market Analysis and News Branch
1428 South King Street
Honolulu, HI 96814-2512

In Cooperation with the United States Department of Agriculture
National Agricultural Statistics Service, Pacific Region

Top 20 Agricultural Commodities Produced
State of Hawaii, 2019

Commodity	Rank	Value of Production (1,000 dollars)
Seed Crops	1	109,500
Coffee	2	54,298
Macadamia Nuts	3	48,840
Other Aquaculture[1]	4	47,937
Cattle	5	41,387
Algae	6	32,652
Basil	7	28,030
Food Crops Grown Under Protection	8	11,000
Milk	9	9,492
Landscape Palms	10	7,914
Orchids-Other Potted Orchids[2]	11	6,685
Papayas	12	4,943
Bananas	13	4,659
Dendrobiums-Potted	14	4,091
Sweet Potatoes	15	3,630
Phalaenopsis-Potted	16	3,509
Palms-Potted for indoor or patio use	17	3,426
Lettuce-Leaf	18	3,260
Anthuriums-Cut	19	3,192
Cabbage-Chinese	20	2,830

[1] Excludes algae and ornamental aquaculture. [2] Excludes dendrobium, oncidiinae and phalaenopsis potted orchids.

Sources:
USDA-NASS and HDOA-MANB

March 11, 2021

Aloha Chair and Committee Members:

On behalf of the Kona Coffee Farmers Association (KCFA), please accept my testimony in support of SB855.

Our non-profit is a membership organization of over 200 current active members. The purpose of KCFA is to support and protect the economic interests of Kona coffee farmers, and the nearly 200 years of heritage of Kona coffee.

Since Coffee Berry Borer Beetle (CBB) is established in Hawaii, with no expectation to fully eliminate, farmers are slowly adapting to control as efficiently as possible; however it still costs time and money.

With the recent confirmation of Coffee Leaf Rust (CLR) as a relatively new pest, the many farmers who experienced a light coffee harvest year last season are now faced with unclear and complicated advice of extensive and expensive inputs in order to seek to abate this new problem. Assistance is needed to combat this serious concern.

Note that one of the potential inputs that should be subsidized equally as others is fertilization, since tree health is a vital component of fighting the CLR infestation (much like human immune systems in fighting off a viral infection). Inputs can be pesticides, however of equal value for many farmers, especially the organic farming system focused ones, is the expense of the inputs of additional fertilizer to keep the trees healthy. Please include this note to HDOA in the language of the final copy of SB855.

Brining these programs together to operate a subsidy support mechanism under the direction of the Hawaii Department of Agriculture (HDOA) is both logical and efficient and will work well for farmer access.

Please work with KCFA and others in the coffee industry (as we have diligently attempted to do ourselves) to ensure that farms do not go out of business because of emergency pest control needs.

We are happy to discuss amendments details, if suggested, but building upon a successful program which the CBB subsidy has been means that this legislation can move forward with a combined CBB and CLR program which will support the integrity and viability of Hawaii coffee farmers.

Many thanks for the opportunity to testify in support of SB855, and to share the position of our farmer-based coffee organization.

Sincerely,

Colehour Bondera
President, Board of Directors

P.O. Box 5436, Kailua-Kona, Hawaii, 96745 * info@konacoffeefarmers.org

SB-855-SD-1
Submitted on: 3/11/2021 9:03:58 AM
Testimony for AGR on 3/12/2021 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Roger Kaiwi	Kona Coffee Council	Support	No

Comments:

Alojha , Kona Coffee Farmers have an up hill battle with CBB as well as other issues, please extend this service to help farmers survive!

Roger Kaiwi

SB-855-SD-1
Submitted on: 3/11/2021 9:56:15 AM
Testimony for AGR on 3/12/2021 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Darwin Inman	Kona Hills LLC	Support	No

Comments:

We support strongly support SB855.

CBB and CLR can damage and destroy the coffee industry in Hawaii. This program greatly assists the small growers in their efforts to fight the Coffee Berry Borer and the assistance will be needed for Coffee Leaf Rust.

Regards,

Darwin Inman

SB-855-SD-1
Submitted on: 3/11/2021 6:06:49 AM
Testimony for AGR on 3/12/2021 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Marcia Nora	Individual	Support	No

Comments:

As a Kona Coffee farmer I want to give my support for SB855. The support we have received in the past for pest control against CBB has made a big difference in our production. We anticipate issues developing with coffee leaf rust and will need help with that too.

SB-855-SD-1
Submitted on: 3/11/2021 10:14:34 AM
Testimony for AGR on 3/12/2021 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jean Orlowski	Individual	Support	No

Comments:

Dear Senators from the Agricultural and Environment committee.

I am writing to you about the coffee rust that was found in Hawaii in the past few months. My name is Jean Orlowski, owner of Hala Tree Coffee. We are one of the largest Certified Organic Coffee Farmers in Kona region (100 acres)

Coffee rust has become one of the main concerns for my farm and its employees. We currently employ 7 people full time and 25 temporary workers during the picking season. We also manage 10 farms on the Island, as well as help farmers through the process of becoming Organic when possible.

Now that the rust has made it to our Island it is very concerning as rust in other regions of the world, when left unchecked, has shown to be devastating to the coffee crop. It can reduce the production, destroy trees and reduce our income to levels that would not be sustainable.

Facts:

- The rust is a fungus that moves with rain, wind, on clothes, cars ... .

- The reproduction cycle for the rust is about 1 month and the 'flying spores' are multiplied exponentially with each cycle.

- It is in all coffee regions around the world and when there, it is there to stay.

- It attacks healthy trees as much as weak trees. Soil nutrients will not help prevent rust from infecting trees.

- There is no cure.

- Some trees are rust resistant. Kona typica trees are not rust resistant. Other countries have replanted their farms with resistant trees.

- The costs for the management of farms will go up (additional work, products to spray ...)

- Only systemic products and sprays can manage the CLR. They are non-Organic.

What is important in management of rust:

- Keep your farm clean, with good weed management

- Keep your trees healthy

- Spray the products available (most of them Organic) that will help slow down the spread but not stop it over time.

- Wild coffee, unmanaged or untreated farms will only aggravate the problem and they will continue to produce rust spores that will have the risk of infecting other farms.

We would love to get the support of the Agricultural and Environment committee. Helping farmers get input products approvals to help mitigate the rust issue. Support farmers in planting new rust resistant types of trees as well as possible subsidies.

Thank you for your ongoing support.

SB-855-SD-1
Submitted on: 3/11/2021 11:07:23 AM
Testimony for AGR on 3/12/2021 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Gloria Biven	Individual	Support	No

Comments:

I am sending this testimony with full support. This will assist the farmer as well as the end consumers.

Mahalo Gloria