



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
Senate Committee on Agriculture and Environment
Monday, February 8, 2021 at 1:00 p.m.

By
Nicholas Comerford, Dean
College of Tropical Agriculture and Human Resources
University of Hawai'i at Mānoa

SB 855 – RELATING TO COFFEE PEST CONTROL

Chair Gabbard, Vice Chair Nishihara, and members of Senate Committee on Agriculture and Environment:

Thank you for this opportunity to testify in strong support of SB 855 relating to the coffee berry borer (CBB). This bill is similar to SB 129, thus, the testimony for both bills are similar.

According to the 2018 State Agriculture overview published by the U.S. Department of Agriculture, Hawai'i 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 Hawai'i 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, Hawai'i in 2010. It has the potential to be a devastating disease for this industry. It is established on Hawai'i 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 cycle 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 Hawai'i 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 Hawai'i.

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 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 SB 855 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.

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
Phone: (808) 973-9600 FAX: (808) 973-9613

TESTIMONY OF PHYLLIS SHIMABUKURO-GEISER
CHAIRPERSON, BOARD OF AGRICULTURE

BEFORE THE SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

February 8, 2021
1:00 P.M.

SENATE BILL NO. 855
RELATING TO COFFEE PEST CONTROL

Chairperson Gabbard and Members of the Committee:

Thank you for the opportunity to testify on Senate Bill 855, 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.



SB-855

Submitted on: 1/31/2021 3:54:13 PM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Harold M Hoogasian	Testifying for Kona Perfect (Member of KCFA)	Support	No

Comments:

Please help support the Hawaii coffee producers in their fight to keep our products safe.



Hawaii Coffee Association
PO Box 168, Kealahou, HI 96750

SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT
February 5, 2021

RE: Testimony in Support of SB855

Aloha Chair Gabbard, Vice Chair Nishihara and Senators,

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

The Hawaii Coffee Association strongly supports SB855. 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 a bit more competitive with growers located across the globe.

Moreover, the HCA applauds the additional support 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](#)

The HCA immediately mobilized by hosting weekly conference calls among HDOA, USDA, APHIS, PBARC UH CTAHR, HARC, lawmakers, other commodity groups and industry leaders. We have developed a Strategic Plan.

UH was already working on approvals for systemic fungicides for use on coffee that are approved for use on other crops. Our entire industry is working collaboratively to accelerate this process. One of our largest producers with was met by insurmountable headwinds when they tried to import rust resistant varieties three short years ago. We are working with USDA and HDOA to streamline the importation and quarantine process for rust resistant coffee varieties and to build capacity of quarantine facilities.

Like so many other industries we are reeling in the wake of COVID. Our member surveys indicate that most producers' sales were severely impacted (80% or more), but unlike many other industries ours is layered with a devastating coffee disease that threatens our existence.

We support a the establishment of the position of CLR coordinator to work on this problem full-time. We understand there are often long delays for hiring within state government and sometimes positions that are allocated go unfilled. We ask that HDOA be empowered to immediately issue a contract for a CLR response coordinator that can fulfill this mission while a more permanent position can be funded, recruited and filled. We respectfully ask that you amend this measure to provide for short- and long-term relief in this capacity.

Another impending need will be the replacement of existing coffee trees with rust resistant varieties. The cost of this replacement will drive many farms out of business. DOFAW has The Hawaii Forest Stewardship Program that began in 1991 through the passage of Act 327 of the Hawaii State Legislature. We ask the Legislature to expand that program to provide eligibility for coffee trees or to model a similar program to assist coffee farmers in the replacement of coffee trees.

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



Hawaii Coffee Association
PO Box 168, Kealahou, 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 cropsⁱ. For the 2019-2020 season, Hawaii's unroasted coffee was valued at \$102.91 millionⁱⁱ, 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 millionⁱⁱⁱ.

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 farmers 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.



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, oncidinae and phalaenopsis potted orchids.

Sources:
 USDA-NASS and HDOA-MANB

SB-855

Submitted on: 2/4/2021 11:34:28 AM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
David Gridley	Testifying for Maui Coffee Association	Support	No

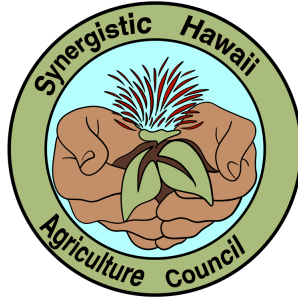
Comments:

The Maui Coffee Association **Strongly Supports** SB 855! Hawaiian Coffee Farmers need all the help they can get to not only fight off the CBB pest, but now are facing an even greater threat to the Hawaiian Coffee Industry in the Form of Coffee Leaf Rust!

We need legislative support !!

Mahalo

David Gridley



RE: SUPPORT for SB855

RELATING TO COFFEE BERRY BORER

Coffee Berry Borer; Coffee Leaf Rust, Subsidy Program

Aloha Chair and Committee Members,

The Synergistic Hawaii Agriculture Council stands in support of this Bill. Our three founding associations - the Hawaii Papaya Industry Association, the Hawaii Floriculture and Nursery Association, and the Hawaii Coffee Association - represent 1,000 businesses, from growers to processors and shippers, stretching across the State of Hawaii.

The coffee berry borer (CBB) is a devastating invasive pest that continues to spread around the state. Economically, many smaller farms struggle to keep up with the cost burdens that CBB has introduced. Close to 1,000 farms have been impacted by the beetle. This subsidy increases the participation of growers in pest management and has made control much more effective regionally. By lowering the cost of the product, more growers are likely to treat the pest, and the overall quality of the crop increases.

For every \$50 in subsidy costs spent per acre, approximately \$600 in improved crop value is returned to the farmer. This has the potential to increase income by up to \$2.4 million across our Kona, Ka'u and Maui coffee communities. The University of Hawaii estimates that each agricultural dollar circulates 11 times through the community, via local wages, goods and services. Supporting ag is good for the economy.

This program should be funded at a minimum of \$200,000 per year to continue the current rate of subsidy, including the provision for program staffing.

Thank you for considering support to this bill. Your attention makes a difference in the lives of hundreds of farmers.

Mahalo nui loa!

Suzanne Shriner
Administrator

SB-855

Submitted on: 2/4/2021 4:55:09 PM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Cynthia Maryanoff	Testifying for KCFA	Support	No

Comments:

Dear Committee on Agriculture and Environment Members,

Senate Bill 855 will extend the HDOA pesticide subsidy program to combat CBB through July 1, 2023, and authorize subsidies to combat coffee leaf rust. An important positive feature of SB 855 is that it would combine the CBB and CLR subsidies under a single program with a single administrator. This is WONDERFUL news for hard working small coffee farmers.

PLEASE support this bill. Fighting CBB is an unbelievable amount of work, resources and money for a small farmer. When the pandemic closed the hotels and retail stores, income just dried up. Now we are hit with leaf rust: airborne spores so it's going everywhere. You need only look around the big island of Hawaii and see all the DEAD Ohia trees and realize leaf rust will spread easier and feel scared that we will be able to survive it all!

Having the Hawaii Committee on Agriculture and Environment on the side of the small farmers would be such a relief, mentally as well as financially!

We, and every coffee farmer in Hawai'i, can provide compelling evidence of the importance of extending and providing continued funding for the pesticide subsidy program to assist farmers in battling the damage threatening the future of coffee growing in Hawaii.

First we had CBB infestation [Mahalo for your support].

Then we had volcanic activity and VOG

Then the pandemic really took out coffee sales.

NOW we have leaf rust!

On behalf of all of the small Kona coffee farms, we are submitting this written testimony **to support SB 855 extend the HDOA pesticide subsidy program to combat CBB through July 1, 2023, and authorize subsidies to combat coffee leaf rust**

Our two Kona coffee farms [Honalo Farm; Cynthiana Farm] have annual infestations of coffee borer beetles. As fledgling farmers, we were shocked to realize how vulnerable our coffee crop was to beetle damage, **and how much work it was for each farm to battle this harmful pest.** Indeed, it is a lot of work for every coffee farmer to battle the beetle. Thus, we really appreciate your continued support of the current HDOA-administered subsidy program for Botanigard and Mycotrol, which are rather expensive pest-control materials. Without this governmental support, we (and other coffee farmers) could not maintain the economic viability of the coffee business. Having enough quality coffee at the end of the growing season is exceedingly important. The volcanic VOG was harmful for coffee as well so yields have been affected badly. **For us, the investment to get started was huge and then to have to battle the beetle; it's been work, work, work, spend, spend, spend. We thank you for the support thus far. Then came the pandemic and the collapse of wholesale sales.**

Coffee Leaf Rust creates a risk that Hawaii-grown coffee will join sugar and pineapple as lost Hawaii-heritage agriculture crops.

Hawaii's coffee farmers ask for your support and ask that you please support SB 855 to establish a new HDOA fungicide subsidy program to combat coffee leaf rust and continue support against CBB..

Mahalo in advance for your support.

Sincerely,

Bruce and Cynthia Maryanoff

cmaryanoff@comcast.net

4 Feb 2021

SB-855

Submitted on: 2/5/2021 1:26:26 PM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Bruce Corker	Testifying for Rancho Aloha	Support	No

Comments:

Chair Gabbard, Vice Chair Nishihara, 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 SB 855 to extend the HDOA's subsidy program for control of Coffee Berry Borer (CBB) and to add subsidies for fungicides 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.

I also strongly agree with the following written testimony of the HDOA presented to this Committee at its hearing on SB128:

“The department suggests the intent of both SB 128 and SB 129 could be better satisfied and require less additional resources by amending Act 105 SLH 2014 and Act 152 SLH 2015 to expand the types of pesticides and the sunset dates.”

Rather than increase expenses by having 2 separately administered subsidy programs, the subsidies for CLR should be added to the existing program for CBB.

Respectfully submitted,

Bruce Corker

Holualoa, Hawaii County

SB-855

Submitted on: 2/6/2021 10:56:29 AM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
John Koontz	Testifying for Konaloha Farms	Support	No

Comments:

In the last ten years, coffee farmers here on the islands have been hit with the two most devastating pests to the coffee industry. Several farms have just shut down due to the added costs of spraying for these pests. Please help us to continue to provide a crop for which Hawaii is recognized for. Mahalo for all you do.....

SB-855

Submitted on: 2/6/2021 11:55:59 AM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Paul Leveque	Testifying for Halai Hill Coffee and Cacao	Support	No

Comments:

Coffee and Cacao cash crops are taxed upon sale and require value in return for that cost. Any and all provided state relief for expenses incurred in the production of coffee and cacao is advised in order to continue to have taxable crops.

SB-855

Submitted on: 2/6/2021 12:59:59 PM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Joan Obra	Testifying for Rusty's Hawaiian	Support	No

Comments:

To: SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

Date: February 6, 2021

RE: Testimony in Support of SB855

Aloha Chair Gabbard, Vice Chair Nishihara and Senators,

My name is Joan Obra, co-owner of Rusty's Hawaiian in Ka'u and vice president of the United Ka'u Farmers Cooperative (UKFC). I am writing in strong support of SB855.

The Subsidy Program for purchasing *Beauveria bassiana*, a biological control agent for coffee berry borer (CBB), has been a key tool in controlling this destructive pest on the Hawaiian islands. The Program cuts some of our farming costs and allows us to produce a greater volume of exportable coffee beans.

We are very glad to see this legislation extend the Program and also include controls for coffee leaf rust (CLR) – an even more devastating pest than CBB. With CLR spreading through Hawaii Island, Maui, Oahu and Lanai, it is imperative that we take action now, before suffering the defoliation and tree death seen in other coffee-growing regions.

From "Rust Devastates Guatemala's Prime Coffee Crop and its Farmers," NPR, July 28, 2014:

"The fungus has spread through Central America at an alarming rate, causing crop losses of more than \$1 billion. And it is leaving hundreds of thousands unemployed in its wake.

In El Salvador, nearly three quarters of all coffee trees are infected with the fungus; in Costa Rica more than 60 percent are infected. And in Guatemala, coffee rust now covers 70 percent of the crop, resulting in the loss of at least 100,000 jobs and a 15 percent drop in coffee output over the past two years."

NPR's article goes on to explain that CLR is worsened by climate warming, which increasingly affects all of us. Hawaii's rural areas, such as the Ka'u coffee belt in which we live and operate, would be disproportionately devastated by a large CLR outbreak: There are not enough industries in Ka'u to absorb the potential job losses.

The combined seriousness of CLR and CBB necessitates a full-time program manager to tackle both pests. We urge that the HDOA be empowered to immediately issue a contract for a CLR-response coordinator that can fulfill this mission while a more permanent position can be funded, recruited and filled. We respectfully ask that you amend this measure to provide for short- and long-term relief in this capacity.

Finally, subsidies for control agents of CLR will buy us time, but we farmers ultimately will need to replace our existing coffee trees with rust-resistant varieties – an expensive undertaking that could drive small farmers out of business. DOFAW has The Hawaii Forest Stewardship Program that began in 1991 through the passage of Act 327 of the Hawaii State Legislature. We ask the Legislature to expand that program to provide eligibility for coffee trees or to model a similar program to assist coffee farmers in the replacement of coffee trees.

For more information about our industry's contributions to Hawaii's economy, the potential impacts of losing the Hawaii coffee industry, and the overall strategic plan to fight CLR, we refer you to testimony in support of SB855 submitted by Chris Manfredi, president of the Hawaii Coffee Association.

Thank you for the opportunity to testify and for your support of Hawaii's statewide coffee industry.

Sincerely,
Joan Obra

SB-855

Submitted on: 2/6/2021 8:19:00 PM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Bernard Markowicz	Testifying for Intelinair	Support	No

Comments:

Testimony in support of oSB855: Relating to Coffee Pest Control

My name is Bernard Markowicz. I am a resident of Kauai, and Intelinair's senior advisor and operations manager for Hawaii. Intelinair is based in Champaign, Illinois. Intelinair is a leader in crop intelligence, combining the analysis of aerial images and ground information to identify crop deficiencies, pests and diseases. For the last three years, Intelinair has worked with the University of Hawaii College of Tropical Agriculture and Human Resources (CTAHR), Kauai Coffee and the Dole Food Company Hawaii to develop advanced coffee-specific methods to identify pests and diseases, in part through grants from the National Science Foundation (NSF) and through the US Department of Agriculture.

I am testifying as a friend of the Hawaii Coffee Association in support of SB855 (Relating to Coffee Pest Control.) Continued subsidies of CBB pesticide and relief for Coffee Leaf Rust are urgently needed in Hawaii in order to manage the spread of the pest and disease. The combined effects of these pest and disease can possibly wipe out the Hawaiian coffee industry, and at the very least greatly affect yield and its celebrated quality.

Last fall, Intelinair submitted to the NSF an SBIR Phase II proposal to develop advanced analytical methods to combat CBB and Coffee Leaf Rust using both aerial and ground information. This proposal is currently being evaluated by the NSF. If our research is awarded and is successful, our proposed methods would improve management of these pest and disease by successfully targeting the application of chemicals. However, until such methods are developed and proven effective, the support of the Senate Committee on Agriculture and Environment (AEN) with respect to SB855 relating to Coffee Pest Control will be of significant help to Hawaii's coffee industry.

Sincerely,

Bernard P. Markowicz, PhD
Intelinair
bernard@intelinair.com

SB-855

Submitted on: 2/6/2021 1:58:51 PM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Efren Abellera	Testifying for Kehau's Coffee Farm	Support	No

Comments:

I am in full support of this bill as I am a coffee farmer in Ka'u that deals with CBB and possibly CLR. It is hard for any individual to continue producing quality coffee without the help of this subsidies that is offered to the farmers. Especially now with this pandemic and not being able to sell our products like before, every little bit counts. Please take into consideration and support this bill. Mahalo, Efren Abellera and my family.

SB-855

Submitted on: 2/7/2021 12:41:14 PM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
JOHN AH SAN	Testifying for United Ka'u Farmers Cooperative	Support	No

Comments:

â€œTo: SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

Date: February 6, 2021

RE: Testimony in Support of SB855

Aloha Chair Gabbard, Vice Chair Nishihara and Senators,

My name is John Ah San, president of the United Ka'u Farmers Cooperative (UKFC). I am writing in strong support of SB855.

The Subsidy Program for purchasing *Beauveria bassiana*, a biological control agent for coffee berry borer (CBB), has been a key tool in controlling this destructive pest on the Hawaii islands. Continuing it and adding controls for coffee leaf rust (CLR), is imperative — as CLR is an even more devastating pest in coffee-producing regions.

To give you an idea of how quickly we could lose Hawaii's coffee industry to CLR, look to what happened in Sri Lanka (formerly known as Ceylon): "In 1870, Ceylon had exported some 118 million pounds of coffee. By 1886, coffee exports were down 80 percent, and by 1890 — just two decades after rust's arrival — 90 percent of the area under coffee cultivation had been abandoned. The crop virtually disappeared from the island." (From "Coffee Rust Threatens Latin American Crop; 150 Years Ago, It Wiped Out An Empire," NPR, October 16, 2018.)

That same NPR story details how waves of CLR outbreaks in Latin America just over the last decade have caused some farms to lose 50%-80% of production. The best solution to prevent this outcome here is replanting our islands with rust-resistant varieties. The controls for CLR subsidized through SB855 buy us time to obtain these varieties.

Please refer to testimony in support of SB855 from Chris Manfredi, president of the Hawaii Coffee Association, for more explanation and our industry's strategic plan for moving forward. Thank you for the opportunity to testify.

Sincerely,

John Ah San

SB-855

Submitted on: 2/7/2021 1:53:46 PM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Lori-Kim Ah San	Testifying for Ka'u Ocean Vista Coffee Estate LLC	Support	No

Comments:

â€œTo: SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

Date: February 6, 2021

RE: Testimony in Support of SB855

Aloha Chair Gabbard, Vice Chair Nishihara and Senators,

My name is Lori-Kim Ah San, co-owner of the Ka'u Ocean Vista Coffee Estate LLC (KOVCE). I am writing in strong support of SB855.

The Subsidy Program for purchasing *Beauveria bassiana*, a biological control agent for coffee berry borer (CBB), has been a key tool in controlling this destructive pest on the Hawaii islands. The Program helps cut some of our farming costs and allows us to produce a greater volume of exportable coffee beans. Continuing it and adding controls for coffee leaf rust (CLR), is vital as CLR is an even more devastating pest in coffee-producing regions.

To give you an idea of how quickly we could lose Hawaii's coffee industry to CLR and the potential impact to our rural communities, look to what happened in Central America: "Starting in the 2011-2012 harvest season, coffee farmers across Central America began noticing an unsettling sight: The leaves of their coffee trees were covered in a powdery orange lesion. It was a fungus called coffee leaf rust. When a plant is badly affected, the infected leaves drop to the ground, and short-circuit the plant's ability to generate energy and thus yield a crop. For many farmers, it caused the

loss not just one crop cycle but two or more: Meaning no income for multiple years in a row for an already vulnerable population of smallholders.

Within a year, the epidemic had spread across the region. Five years later, the Central American coffee leaf rust epidemic had devastated the region, affecting 70% of farms. Over 1.7 million coffee workers lost their jobs and it caused \$3.2 billion in damage and lost income. Many farmers gave up on farming coffee and will not come back.” (From “APPLIED R&D FOR COFFEE LEAF RUST - Cross-cutting initiatives to fight coffee leaf rust on multiple fronts,” World Coffee Research’s website [Applied R&D for coffee leaf rust \(worldcoffeeresearch.org\)](https://worldcoffeeresearch.org/work/applied-rd-coffee-leaf-rust/) link or <https://worldcoffeeresearch.org/work/applied-rd-coffee-leaf-rust/>).

The controls for CLR subsidized through SB855 buy us time to find workable solutions for these pests and obtain and replant our islands with rust-resistant coffee varieties.

Please refer to testimony in support of SB855 from Chris Manfredi, president of the Hawaii Coffee Association, for more explanation and our industry’s strategic plan for moving forward. Thank you for the opportunity to testify.

Sincerely,

Lori-Kim Ah San

SB-855

Submitted on: 2/7/2021 8:51:19 PM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Gerry Ross	Testifying for Maui Coffee Association	Support	No

Comments:

Aloha

My name is Gerry Ross and I am president of the Maui Coffee Association, a nonprofit group of coffee farmers, business people, and enthusiasts. We support extending the sunset date on the subsidy for pesticides (organic) and fungicides (mixed conventional and organic) that we need to keep to both CBB and CLR at bay. We are at the beginning of a serious crisis for coffee farmers in our state. Not only have the previously mentioned pests/diseases lowered yield but now the pandemic has affected coffee sales. Keeping our industry moving forward can be helped with legislated subsidies to control the two pests that have appeared so suddenly and with such negative impacts on our farmers. Please keep the subsidies for these expenses in place. Mahalo

SB-855

Submitted on: 2/4/2021 7:17:38 AM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Cecelia Smith	Individual	Support	No

Comments:

Please continue this Subsidy program to help us battle the Coffee Berry Borer and the newly found Coffee Leaf Rust. We need the help badly.

Mahalo and with aloha,

Cecelia Smith

SB-855

Submitted on: 2/6/2021 10:13:59 AM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jim Monk	Individual	Support	No

Comments: My name is Jim Monk and I am a coffee farmer in the Kona coffee area. Over the past number of years we have been hit hard with the Coffee Beetle Borer (CBB), substantially increasing our costs and lowering our yields. Now we are about to be even more severely impacted with Coffee Leaf Rust (CLR). Happily, the State has been assisting us to purchase the spray material for CBB. Thank you. Now I ask that your approve adding support for the sprays we will need for CLR to the same program. The CLR may have a far more severe impact than CBB and has already been detected on almost all the Hawaiian islands. If the coffee industry of this State is not to disappear or be severely reduced, we need government support to combat this scourge. Please approve SB855.

SB-855

Submitted on: 2/6/2021 11:14:59 AM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dawn Barnes	Individual	Support	No

Comments:

We have 26,000 coffee trees and now have confirmed CLR on our farm in Kona. Unfortunately we are certified organic and most likely will have to surrender our organic status in order to save the farm and business. We need an EMERGENCY DECLARATION from the state government. This is the only way the USDA will allow us get back into the program once we figure out an organic solution to CLR - be it organic inputs or re-planting resistant varieties. Thanks in advance for considering this.

SB-855

Submitted on: 2/6/2021 11:50:32 AM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Robet	Individual	Support	No

Comments:

We must do everything possible to save Hawaii's coffee industry from both CBB and CLR.

SB-855

Submitted on: 2/6/2021 8:33:19 PM

Testimony for AEN on 2/8/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Mark Takizawa	Individual	Support	No

Comments:

My family have been farming Kona coffee since 1987 in honaunau, this area has been hit hard by CBB and honaunau is a hot spot and now with the CLR in our area I strongly support more support in this fight.