

DAVID Y. IGE  
GOVERNOR OF  
HAWAII



SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA  
FIRST DEPUTY

M. KALEO MANUEL  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

**Testimony of  
SUZANNE D. CASE  
Chairperson**

**Before the Senate Committee on  
WAYS AND MEANS**

**Tuesday, February 25, 2020  
12:40 PM**

**State Capitol, Conference Room 211**

**In consideration of  
SENATE BILL 3042  
RELATING TO INVASIVE SPECIES**

Senate Bill 3042 proposes to appropriate funds to the Department of Agriculture (DOA) for the management and recovery actions related to the two-lined spittlebug, a pest of pasture grasses. **The Department of Land and Natural Resources (Department) supports this measure provided that its passage does not replace or adversely impact priorities indicated in the Executive Supplemental Budget request.**

Invasive species are a primary threat to Hawaii's natural resources, agriculture, and economy, and to the health and lifestyle of Hawaii's residents and visitors. The Department works closely with the DOA on cross-sector invasive species issues via the Hawaii Invasive Species Council (HISC). HISC previously awarded research funds to understand the biology of the two-lined spittlebug and is aware of significant investment from DOA to mitigate spittlebug impacts. Though the primary target of the spittlebug, kikuyu grass, is itself an invasive grass, the Department recognizes the importance of growing local food production and protecting agricultural capacity.

Thank you for the opportunity to comment on this measure.

**DAVID Y. IGE**  
Governor

**JOSH GREEN**  
Lt. Governor



**PHYLLIS SHIMABUKURO-GEISER**  
Chairperson, Board of Agriculture

**MORRIS M. 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 WAYS AND MEANS**

**FEBRUARY 25, 2020  
12:40 P.M.  
CONFERENCE ROOM 211**

**SENATE BILL NO. 3042  
RELATING TO INVASIVE SPECIES**

Chairperson Dela Cruz and Members of the Committee:

Thank you for the opportunity to testify on Senate Bill 3042, relating to invasive species. The bill appropriates funds from the general fund for fiscal year 2020-2021 to be expended by the Hawaii Department of Agriculture to mitigate and control the two-lined spittlebug; to fund outreach, education, surveillance, treatment, and pest management protocols; and to fund recovery efforts including but not limited to reducing the two-lined spittlebug population using insecticides, integrating weed management measures in affected rangelands, and reseeding pastures damaged by infestations. It also directs the Department to submit a report of its findings and recommendations, including any legislation, to the legislature no later than twenty (20) days prior to the convening of the regular session of 2021, which documents the expenditure of funds and the progress of activities funded by this measure. The Department supports this measure provided it does not adversely impact priorities identified in the Executive Budget.

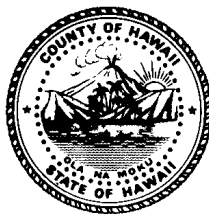
Invasive species are a primary threat to Hawai'i's agriculture and economy. Funding for control of invasive species is critical to ensure that appropriate responses can be implemented and maintained which mitigate negative impacts on the



environment and economy. The Hawai'i Interagency Biosecurity Plan guides these efforts. Although the primary target of the spittlebug, kikuyu grass, is itself an invasive grass, the grass is widely used for pastures and the Department feels that protecting these pastures is in the best interest of the State, as it is in line with the Department's mission of growing local food production and protecting agricultural capacity.

Thank you for the opportunity to testify on this measure.

REBECCA VILLEGAS  
Council Member  
District 7, Central Kona



PHONE: (808) 323-4267  
FAX: (808) 323-4786  
EMAIL: [Rebecca.villegas@hawaiicounty.gov](mailto:Rebecca.villegas@hawaiicounty.gov)

## HAWAI'I COUNTY COUNCIL

*West Hawai'i Civic Center, Bldg. A  
74-5044 Ane Keohokalole Hwy.  
Kailua-Kona, Hawai'i 96740*

February 21, 2020

### TESTIMONY OF REBECCA VILLEGAS COUNCIL MEMBER, HAWAI'I COUNTY COUNCIL ON SB 3042, RELATING TO INVASIVE SPECIES

Committee on Ways and Means

Tuesday, February 25, 2020

12:40 p.m.

Conference Room 211

Aloha Chair Dela Cruz, and the Members of the Committee:

I thank you for the opportunity to testify in support of SB 3042, relating to invasive species. My testimony is submitted in my individual capacity as a member of the Hawai'i County Council.

The purpose of this measure is to appropriate funds to mitigate and control the two-lined spittlebug, to fund outreach, education, surveillance, treatment, and pest management protocols. The two-lined spittlebug is an invasive insect that attacks key forage grasses used by livestock ranching. The pest has damaged nearly 2,000 acres of pasture land and the damage does not allow for regrowth, requiring ranchers to totally replant affected pastures. The pest is rapidly expanding its range and now covers more than 222 square miles. Cattle production is an economic engine for the State particularly on the Island of Hawai'i where nearly sixty percent of the State's cattle is raised. This pest is threatening both job and food security making it crucial to address infestations and to restrict further spreading. Appropriating funds to get some control on this invasive species will only benefit the State.

For the reasons stated above I urge the Committee on Ways and Means to support this measure as well. Should you have any questions, please feel free to contact me at (808) 323-4267.

Mahalo for your consideration.

A handwritten signature in black ink, appearing to read 'Rebecca Villegas'.

Rebecca Villegas  
Council Member, Hawai'i County Council

Harry Kim  
Mayor



Roy Takemoto  
Managing Director

Barbara J. Kossow  
Deputy Managing Director

## County of Hawai'i Office of the Mayor

25 Aupuni Street, Suite 2603 • Hilo, Hawai'i 96720 • (808) 961-8211 • Fax (808) 961-6553  
KONA: 74-5044 Ane Keohokālole Hwy., Bldg C • Kailua-Kona, Hawai'i 96740  
(808) 323-4444 • Fax (808) 323-4440

February 21, 2020

Senator Donovan M. Dela Cruz, Chair  
Senator Gilbert S.C. Keith-Agaran, Vice Chair  
Committee on Ways and Means

Dear Chair Dela Cruz, Vice Chair Keith-Agaran, and Committee Members:

### RE: **SB 3042 Relating to Invasive Species**

In the past three years, the Council of Mayors has identified invasive species as a top priority that deserves everyone's attention. Our best efforts at the county level are often inadequate to protect our islands from harmful pests, and limited resources make it imperative that the State, counties, Feds, and private sector work together in pursuing solutions to what often seem intractable problems. This Legislature has really stood up, and hopefully will do even more this year.

It can be discouraging to think of how many different invasive species are plaguing Hawai'i and with the possible exception (so far) of the parakeet problem, it seems that Hawai'i County has suffered a disproportionate share of the damage caused by invasive species, including rapid ohia death, little fire ants, coqui frogs, coffee berry borer, miconia, and now the two-lined spittlebug. But we cannot give up. And since, as a county, we do not have the resources or expertise to fight these devastating invaders on our own, we need as much assistance from the State as you can offer.

While I would defer to others as to how precious dollars should be allocated, I strongly endorse the investment of funds in combatting invasives, and therefore urge passage of SB 3042 in some form. Please provide as much money as you can manage, broaden the initiative if you think it appropriate, include positions and funding in your priorities for the State budget, and let's move forward.

Respectfully Submitted,

Harry Kim  
MAYOR

**LARRY JEFTS FARMS, LLC  
PO BOX 27  
KUNIA, HAWAII 96759  
(808) 688-2892**

SB3042, Relating to Invasive Species  
Senate WAM Decision Making Hearing  
Tuesday, February 25, 2020  
12:40pm  
Conference Room 211

Testimony by: Larry Jeffs  
Position: Support

Chair Dela Cruz, Vice Chair Keith-Agaran, and Members of the Senate WAM Committee:

I am Larry Jeffs, owner and operator of Larry Jeffs Farms, LLC, which is part of our family-run business of farms on Oahu and Molokai, under the administrative umbrella of Sugarland Growers, Inc. We have more than 35 years of Hawaii farm experience on Molokai and Oahu. I am a volunteer director for the West Oahu Soil and Water Conservation District (SWCD).

The two-lined spittle bug is originally native to the southern United States but was first discovered on the Big Island in 2016. There are signs that the pest is moving northward to areas like Pu'u Wa'awa'a. This invasive pest has affected hundreds of thousands of acres of cattle grazing land on the Big Island—with no effective solutions so far. An unchecked infestation can reduce entire pastures to dust to be replaced with weeds that cattle cannot eat. (Hawaii Tribune Herald, Feb. 7, 2020)

Livestock ranching has an estimated annual value of \$68 million with 142,000 beef cattle on 1,300 ranches---60% are raised on the Big Island. It's an industry that is striving to bring local food to Hawaii consumers.

The appropriations request for the Department of Agriculture to mitigate and control the two-lined spittlebug is needed and supported to move Hawaii towards food import replacement.

Thank you for the opportunity to testify on this bill.

**SB-3042**

Submitted on: 2/21/2020 8:16:27 AM

Testimony for WAM on 2/25/2020 12:40:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Keith	Testifying for McCandless Ranch	Support	No

Comments:

**SB-3042**

Submitted on: 2/21/2020 1:49:58 PM

Testimony for WAM on 2/25/2020 12:40:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Stephanie P. Donoho	Testifying for Kohala Coast Resort Association	Support	No

Comments:



**SB-3042**

Submitted on: 2/22/2020 7:19:13 AM

Testimony for WAM on 2/25/2020 12:40:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Warren Watanabe	Testifying for Maui County Farm Bureau	Support	No

Comments:



February 20, 2020

Senator Donovan M. Dela Cruz, Chair  
Senator Gilbert S.C. Keith-Agaran, Vice Chair  
Senate Committee on Ways and Means

**Testimony in Support of SB 3042, Relating to Agriculture (Appropriates funds to the Department of Agriculture [DOA] for efforts to mitigate and control two-lined spittlebug infestations in the State.)**

**Tuesday, February 25, 2020, 12:40 p.m., in Conference Room 211**

The Land Use Research Foundation of Hawaii (LURF) is a private, non-profit research and trade association whose members include major Hawaii landowners, developers and utility companies. LURF's mission is to advocate for reasonable, rational and equitable land use planning, legislation and regulations that encourage well-planned economic growth and development, while safeguarding Hawaii's significant natural and cultural resources, and public health and safety.

LURF appreciates the opportunity to express its **support of SB 3042** and of the various agricultural stakeholder groups who defend the goals of viable agricultural operations and the conservation and protection of agriculture in Hawaii.

**SB 3042.** This bill proposes to appropriate funds out of the general revenues of the State for fiscal year 2020-2021, for the DOA to mitigate and control the two-lined spittlebug, and to utilize the moneys to fund recovery efforts including outreach, education, surveillance, treatment, and pest management protocols.

**LURF's Position.** Invasive species such as insects, disease-bearing organisms, snakes, weeds, and other pests pose the greatest threat to Hawaii's economy, agriculture, tourism, the natural environment, native species and to the health and lifestyle of Hawaii's people. Invasive species already cause millions of dollars in crop losses, the extinction of native species, the destruction of native wet, moist and dry land forests, and the spread of disease, but many more harmful pests, such as the two-lined spittlebug now threaten to infest and damage pasture lands, reducing the quality of forage pastures, and thereby impairing livestock ranching, which is a highly productive, expanding, and extremely valuable industry on all islands with an estimated current annual value of more than \$68 million.

LURF members include property owners, farmers and ranchers who own, maintain, and engage in agricultural enterprises, and who consider efforts to protect and support agriculture significant to the continued conduct of their operations and to help sustain and preserve farming and ranching businesses into the future. The two-lined spittlebugs threaten job and food security in the agricultural and ranching industries, as well as throughout the State, making it vital to address infestations and restrict further uncontrolled spread.

For the above reasons, LURF **supports SB 3042** and respectfully urges your favorable consideration.

Thank you for the opportunity to present testimony regarding this matter.

**SB-3042**

Submitted on: 2/22/2020 12:28:50 PM

Testimony for WAM on 2/25/2020 12:40:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Alan Gottlieb	Testifying for Ponoholo Ranch Limited	Support	No

Comments:

Two-lined spittlebug was first detected in Kailua-Kona, on the Big Island of Hawaii in September 2016 where it had caused damage to nearly 2,000 acres of pasture land. Monthly pasture surveys that began in in November 2017 have revealed that the pest has rapidly expanded its range and as of October of 2019 infests over 222 sq. miles or about 142,468 acres. It is imperative that we stop the spread of the Two-lined Spittlebug and assist ranchers affected in recovery efforts.

Two-lined Spittlebug infestations in Hawaii have been shown to dramatically reduce the forage quantity and quality of pastures by killing key forage species outright, or by decreasing the nutritional value, palatability, and productivity of key forages. This promotes the establishment and proliferation of invasive weeds with no economic or other value, while significantly reducing the quality of foraging grasses. Reseeding areas denuded by the Two-lined Spittlebug will protect from runoff and provide forage for cattle.

Whether one supports the livestock industry or not, this invasive pest left unstopped will have a devastating effect on Hawaii's environment and watersheds.

**SB-3042**

Submitted on: 2/23/2020 9:15:12 AM

Testimony for WAM on 2/25/2020 12:40:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Tony t Brun	Testifying for Circle5ranch	Support	No

Comments:



**Hawaii Cattlemen's Council, Inc.**

**COMMITTEE ON WAYS AND MEANS**

Senator Donovan M. Dela Cruz, Chair

Senator Gilbert S.C. Keith-Agaran, Vice Chair

**SB3042**

Appropriates funds to the Department of Agriculture for its efforts to mitigate and control two-lined spittlebug infestations in the State.

Tuesday, February 25, 2020, 12:40 p.m.  
Conference Room 211, State Capitol  
415 South Beretania Street

Chair Dela Cruz, Vice Chair Keith-Agaran and Members of the Committee on Ways and Means,

The Hawaii Cattlemen's Council **strongly supports SB3042**.

Two-lined spittlebug was first detected in Kailua-Kona, on the Big Island of Hawaii in September 2016 where it had caused damage to nearly 2,000 acres of pasture land. Monthly pasture surveys that began in in November 2017 have revealed that the pest has rapidly expanded its range and as of October of 2019 infests over 222 sq. miles or about 142,468 acres. It is imperative that we stop the spread of the Two-lined Spittlebug and assist ranchers affected in recovery efforts.

Two-lined Spittlebug infestations in Hawaii have been shown to dramatically reduce the forage quantity and quality of pastures by killing key forage species outright, or by decreasing the nutritional value, palatability, and productivity of key forages. This promotes the establishment and proliferation of invasive weeds with no economic or other value, while significantly reducing the quality of foraging grasses. Reseeding areas denuded by the Two-lined Spittlebug will protect from runoff and provide forage for cattle.

Recovery efforts for ranches affected by Two-lined Spittlebug include brush management, herbaceous weed treatment, range planting, forage and biomass planting, and fencing and prescribed grazing.

The potential impact on the cattle industry could be devastating. Additionally, the negative effects of bare soil and erosion will not just affect the cattle industry, but the wider community. We **strongly support SB3042** for funds to be appropriated to aid in recovery from the damage from the Two-lined Spittlebug and also aim to work towards preventing the spread of the invasive species.

HCC is committed to supporting our civic leaders promote a coherent state-wide policy for sustainable development. Using the 17 United Nations Sustainable Development Goals as a framework, we advocate policy that; increases local food production to promote food security, protects agricultural lands, promotes carbon neutrality, models sustainable land use, protects our watersheds, supports long-term stable employment that embraces technology and innovation, contributes to the health and well-being of the community, and encourages public, private and civic partnerships.

Nicole Galase  
Managing Director



**SB-3042**

Submitted on: 2/24/2020 6:30:15 AM

Testimony for WAM on 2/25/2020 12:40:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jimmy Gomes	Testifying for Ulupalakua Ranch	Support	No

Comments:



P.O. Box 253, Kunia, Hawai'i 96759  
Phone: (808) 848-2074; Fax: (808) 848-1921  
e-mail [info@hfbf.org](mailto:info@hfbf.org); [www.hfbf.org](http://www.hfbf.org)

February 25, 2020

HEARING BEFORE THE  
SENATE COMMITTEE ON WAYS AND MEANS

**TESTIMONY ON SB 3042**  
RELATING TO INVASIVE SPECIES

Room 211  
12:40 PM

Aloha Chair Dela Cruz, Vice Chair Keith-Agaran, 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 HB 3042**, which appropriates funds to the Department of Agriculture for its efforts to mitigate and control two-lined spittlebug infestations in the State.

Two-lined spittlebug was first detected in Kailua-Kona, on the Big Island of Hawaii in September 2016 where it had caused damage to nearly 2,000 acres of pasture land. Monthly pasture surveys that began in November 2017 have revealed that the pest has rapidly expanded its range and as of October of 2019 infests over 222 sq. miles or about 142,468 acres. It is imperative that we stop the spread of the Two-lined Spittlebug and assist ranchers affected in recovery efforts.

Two-lined Spittlebug infestations in Hawaii have been shown to dramatically reduce the forage quantity and quality of pastures by killing key forage species outright, or by decreasing the nutritional value, palatability, and productivity of key forages. This promotes the establishment and proliferation of invasive weeds with no economic or other value, while significantly reducing the quality of foraging grasses. Reseeding areas denuded by the Two-lined Spittlebug will protect from runoff and provide forage for cattle.

Recovery efforts for ranches affected by Two-lined Spittlebug include brush management, herbaceous weed treatment, range planting, forage, and biomass planting, and fencing and prescribed grazing.

Thank you for this opportunity to testify on this important subject.



**SB-3042**

Submitted on: 2/24/2020 9:59:04 AM

Testimony for WAM on 2/25/2020 12:40:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Sara Moore	Testifying for Kealia Ranch	Support	No

Comments:

Our ranch in South Kona is severely impacted by forage degradation. We appreciate any assistance to the livestock industry.

Mahalo!



Email: [communications@ulupono.com](mailto:communications@ulupono.com)

SENATE COMMITTEE ON WAYS & MEANS  
Tuesday, February 25, 2020 — 12:40 p.m. — Room 211

**Ulupono Initiative supports SB 3042, Relating to Invasive Species.**

Dear Chair Dela Cruz and Members of the Committee:

My name is Amy Hennessey, and I am the Senior Vice President of Communications & External Affairs at Ulupono Initiative. We are a Hawai'i-based impact investment firm that strives to improve our community's quality of life by creating more locally produced food; increasing affordable clean renewable energy and transportation options; and better managing waste and fresh water resources.

**Ulupono supports SB 3042**, which appropriates funds to the Department of Agriculture for its efforts to mitigate and control two-lined spittlebug infestations in the State.

Ulupono supports the State's goal to increase local food production, which includes strengthening the local livestock industry. The Two-lined Spittlebug was first detected in Kailua-Kona on Hawai'i Island in September 2016 where it damaged roughly 2,000 acres of pastureland. As of October 2019, damage from infestation has skyrocketed to about 142,468 acres of rangelands on Hawai'i Island. In highly infested areas, there is 100% die-off of key pasture grasses such as Kikuyu and Pangola. Rapid spread and die-off due to this pest are affecting the local livestock industry and pose a massive threat to production on Hawai'i Island. This is especially significant for those ranchers investing in producing grass-fed beef who rely on a low-cost feed vs. costly imported grain.

Increasing State resources to support the local livestock industry will be crucial in maintaining the growth of local livestock production and meeting State food production goals.

Thank you for this opportunity to testify.

Respectfully,

Amy Hennessey, APR  
Senior Vice President, Communications & External Affairs

*Investing in a Sustainable Hawai'i*



**SB-3042**

Submitted on: 2/24/2020 3:08:14 PM

Testimony for WAM on 2/25/2020 12:40:00 PM



Submitted By	Organization	Testifier Position	Present at Hearing
Heather Simmons	Testifying for Hawaii Forest Industry Association	Support	No

Comments:

Date: 2-24-2020

TO: HFIA Legislative Committee

FROM: Peter D. Simmons

SUBJECT: Testimony – Two Lined Spittle Bug

**Hawai'i Forest Industry Association's Testimony Favoring the funding of research to control of the two-lined spittle bug and to give aid to the land it has demised.**

The Hawai'i Forest Industry Association (HFIA) is in its 31 year and it is a State-wide association of Landowners, Woodworker, Forest Professionals and concerned citizens. My name is Peter Simmons; I am a current and was a founding Board member. It is on behalf of HFIA that I submit testimony in favor of funding research and demonstrations to control the two-lined spittlebug. And HFIA further recommends funding for already decimated areas that are to be re-vegetated.

Our Hawaii Cattlemen face a very difficult foe. HFIA agrees with the intent of this bill to inject research funds into finding answers to blunt the two lined spittle bug's aggressive devastation. Because of the damage done and that which is occurring, HFIA's recommends including funds to mitigate this disaster.

While it may seem like a good idea to take advantage of the demise of Hawaii's kikuyu and pangola grass lands to reforest Hawaii; the opposite will occur. That is, when the land is exposed to a plethora of aggressive pyrophytic (fire-loving) weeds once the spittle bug is done. Once fires are extinguished the exposed damaged soil is going to attract more weeds. This is not good for cattle ranching; it is not good for forestry; it's not good for our communities and it is highly degrading to the land and soils. To do nothing and allow "nature to take her course" is disrespectful to the land and people of Hawaii.

While this devastating bug attacks our cattlemen and women's land and livelihood we need to as the song says, "All Hawaii stand together". This is the time not only to do the right thing by cattle ranchers; we need to do the right thing for our potential forest lands and lands that are in transition. This is an issue that should have the support of DLNR's Land Division as well as it Division of Forestry and Wildlife.

Therefore the Hawai'i Forest Industry Association supports this bill and recommends additional funds to mitigate damages caused by this bug.

**SB-3042**

Submitted on: 2/24/2020 2:11:47 PM

Testimony for WAM on 2/25/2020 12:40:00 PM

**LATE**

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
John Bickel	Testifying for Americans for Democratic Action	Support	No

Comments:

We need to control the infestations of invasive species like the spittlebug.

## Public Comment before the Senate Ways and Means Committee regarding SB 3042

I am a physician, retired after General Practice in Honokaa for 36 years. For the past year or two I have been interested in the Spittlebug infestation in the Kona pastures. My interest here arises from climate change concerns, and recognizing that those pastures which have become degraded by this infestation have therein become the State of Hawaii's best opportunity for meaningful reforestation for the purpose of carbon sequestration and plant based (food forest) agriculture, to address the climate emergency.

I proposed the following two Amendments to this Bill as it passed through the Agriculture & Environment Committee.

- 1) A study of proposed reforestation of degraded pasturelands will be undertaken. Such reforestation would be for purposes of Carbon Sequestration, Plant based agriculture and food forest, and environmental and cultural restoration. This study would be coordinated between Department of Agriculture, the Division of Wildlife and Forestry of DLNR and University of Hawaii Extension Service. This would include consideration of strategies to incentivize the custodians of the degraded pasturelands toward reforestation. This might include lease or purchase strategies.
- 2) Any pesticide use for eradication of spittlebug which is beyond the current (February 2020) licensing limitations for use in the State of Hawaii shall be reported monthly to the public in the form of either mailing to the public of Hawaii Island, or prominent announcement in the news services which will include Hawaii Tribune Herald, West Hawaii Today and Honolulu Star Advertiser. This will include identification of chemicals used and locations (maps) of application and amounts of application.

I ask that these amendments be reconsidered by your committee even though I presume that your committee has primary responsibility toward the fiscal effects of the proposed Bill. I would believe that you can consider a substantive amendment if you believe that it supports the overall integrity of the Bill. Consider the Following:

1. We all begin with the desire that the Spittlebug infestation would be eliminated or substantially controlled. We all desire to support the ranchers in this challenge.
2. My two conversations with the Big Islands's recognized authority on the Spittlebug infestation, Mark Thorne, UH Agricultural Extension agent for pasturelands, have left me with the impression that there is no possibility of eradication and meaningful control will be very difficult to achieve. I refer you to the following articles:

<https://dlnr.hawaii.gov/hisc/files/2019/07/TLNB-HISC-Project-Report-072919.pdf>

<https://www.hawaiitribune-herald.com/2019/12/10/hawaii-news/farmers-have-few-options-for-fighting-two-lined-spittle-bug/>

<https://globalrangelands.org/sites/globalrangelands.org/files/dlio/70620/Two-Lined%20Spittlebug%20-%20November%202018%20Updat.pdf>

3. If a meaningful control strategy is possible then it should be investigated as thoroughly as possible. Mitigation by means of substitution of 140,000 acres of degraded grasslands with more resistant varieties of pasture grass would be a daunting task.
4. Because of the enormity of these challenges we must expand our scope of consideration to other desirable outcomes and thus we remember that we are in the midst of another immense challenge - the climate crisis. The Hawaii County Council and Maui Council have recently declared climate emergency.

5. Hawaii's preeminent climate scientist, Charles Fletcher PhD, UH SOEST and vice chairman of the Honolulu Climate Commission, a recognized authority on the impacts of climate change in the Pacific basin, recently presented this address to the Hawaii County Council: [https://www.youtube.com/channel/UCjLzUPr31k14\\_8SQKhU\\_Z9w](https://www.youtube.com/channel/UCjLzUPr31k14_8SQKhU_Z9w) (1hr 15min). In this lecture he states:

1. Producing beef generates 100x more Greenhouse Gas than plant-based food
2. Over 80% of farmland is used for livestock but it produces just 18% of food calories and 37% of protein.
3. Cattle + grain they eat use one-third of available land surface on this planet.
  - . 16% of all available freshwater
  - . 1/3 of worldwide grain production
4. We are deforesting the planet at a rate of 30 football fields per minute, largely to raise cattle and the grain to feed them.

6. It is widely recognized that foremost among the mitigation strategies that can be applied to effectively reduce or retard the threat of Climate Change is sequestration of atmospheric Carbon Dioxide through afforestation and reforestation of all available lands. The current federal administration has committed to participate in global planting of 'a Trillion Trees'.

7. The Intergovernmental Panel on Climate Change has recommended the shifting of diet emphasis away from meat consumption toward a plant based diet for purposes not only of individual health but also as a major climate change mitigation strategy.

7. All of the pastureland on Hawaii Island was previously forested prior to the introduction of cattle. Reforestation, therefore, would be a practical response in the efforts to mitigate the effects of climate change.

8. Because of the possibility, if not likelihood, that no effective strategy of control and mitigation of this infestation will develop, planning for conversion of these degraded pasturelands into forested lands should be investigated. This investigation would inform the ranchers of opportunities for livelihood as custodians of these newly forested lands, possibly as agricultural enterprises to enhance the food security and local food sourcing for these islands.

9. Thus, the expenditure of funds for the benefit of the 'aina', beginning with identification of the best use of these degraded pastures, must include the study of possibilities of reforestation of these lands for climate mitigation through carbon sequestration and for plant based agriculture, orchards and 'food forest'. But also the environmental and cultural benefit from reforestation would be great.

10. The public on the island of Hawaii is sensitive to the use of pesticides. A ban on pesticide use on public property such as roadsides and parks was recently passed by the County Council only to fail with the Mayor's veto. The public will rightfully insist that any use of pesticides which is beyond the currently allowed practice must be brought to the public's attention. I believe that if the facts and projections surrounding the TLSB infestation are understood, the public would condone some flexibility in pesticide use in control efforts, so long as the public is updated regularly.

I therefore request that the Senate Ways & Means Committee confer with the Agriculture & Environment Committee Chairman to come to an understanding of why the above amendments were not integrated into this Bill at that Committee hearing. If agreement could possibly be achieved then proceed with attaching the amendments as follows:



1) A study of proposed reforestation of degraded pasturelands will be undertaken. Such reforestation would be for purposes of Carbon Sequestration, Plant based agriculture and food forest, and environmental and cultural restoration. This study would be coordinated between Department of Agriculture, the Division of Wildlife and Forestry of DLNR and University of Hawaii Extension Service. This would include consideration of strategies to incentivize the custodians of the degraded pasturelands toward reforestation. This might include lease or purchase strategies.

2) Any pesticide use for eradication of spittlebug which is beyond the current (February 2020) licensing limitations for use in the State of Hawaii shall be reported monthly to the public in the form of either mailing to the public of Hawaii Island, or prominent announcement in the news services which will include Hawaii Tribune Herald, West Hawaii Today and Honolulu Star Advertiser. This will include identification of chemicals used and locations (maps) of application and amounts of application.

Respectfully, Tawn Keeney MD

**SB-3042**

Submitted on: 2/20/2020 5:57:46 PM

Testimony for WAM on 2/25/2020 12:40:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Andrea Quinn	Individual	Support	No

Comments:

Dear Honorable Committee Members:

Please support SB3042. Hawaii is known as the “endangered species capital of the world” due in large part to invasive species. We must do what we can to protect Hawaii's dwindling native species, which will in turn protect Hawaii’s fragile ecosystem.

Thank you for the opportunity to present my testimony.

Sincerely,

Andrea Quinn

Kihei, Maui

**SB-3042**

Submitted on: 2/23/2020 7:27:45 PM

Testimony for WAM on 2/25/2020 12:40:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
randall cremer	Individual	Support	No

Comments:

**SB-3042**

Submitted on: 2/23/2020 8:35:10 PM

Testimony for WAM on 2/25/2020 12:40:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Ku'ulani Auld	Individual	Support	No

Comments:

**SB-3042**

Submitted on: 2/24/2020 6:08:16 AM

Testimony for WAM on 2/25/2020 12:40:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Taylor Kellerman	Individual	Support	No

Comments:

**SB-3042**

Submitted on: 2/24/2020 7:26:01 AM

Testimony for WAM on 2/25/2020 12:40:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Gregory FRIEL	Individual	Support	No

Comments:

**SB-3042**

Submitted on: 2/24/2020 10:04:36 AM

Testimony for WAM on 2/25/2020 12:40:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Bud & Katy Gibson	Individual	Support	No

Comments:

This pest affects all of us and needs to be dealt with with all our resources to attain sustainability.

Mahalo

Bud and Katy Gibson

**LATE**

**SB-3042**

Submitted on: 2/24/2020 2:53:50 PM

Testimony for WAM on 2/25/2020 12:40:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jimmy Greenwell	Individual	Support	Yes

Comments:

My name is Jim Greenwell. I am past President of Palani Ranch Company and am a member of its Board of Directors. I am testifying in strong support of SB3042.

Palani Ranch in North Kona was one of the ranches where this insect first appeared in 2016. The rapid expansion of the infested area from 2000 acres in 2016 to over 135,000 acres today speaks to the aggressive nature of this bug and the urgency to combat the damage it is causing. The spittle bug totally and quickly is killing our basic grasses (kikuyu and pangola) in the 2000 ft to 5000 ft elevation range. The resulting bare ground is immediately filled with useless and rugged invasive species that are tough to eradicate and make recovery of these grasslands extremely challenging.

Much of the grassland we care for has been decimated by the spittle bug. What was excellent and well managed rangeland with 95% grass cover and minimal weed infestation four years ago today has less than 2% grass cover and is totally overrun by invasive blackberry, plucia, thistle, fireweed, Hamakua Pamakani and other invasives. We are struggling to find spittle bug resistant grass species to replant and are in search of reclamation strategies that are commercially realistic. It is a race against time.

It is important to remember that ranchers are basically grass farmers. We happen to raise cattle on that grass as that allows us an opportunity to realize some value from the grass as well as to use cattle as a management tool on the land. We are not just concerned about protecting our industry. We are concerned that the value of these lands to the broader community attributable to the ecosystem services that flow from well managed rangeland will be impacted if the grass cover is lost. This includes for example the value of well managed rangeland for soil conservation and retention, watershed protection and enhancement, carbon sequestration and wildfire mitigation.

I look forward to being at the WAM hearing February 25 to respond to any questions members of the Way and Means Committee may have. Thank you for this opportunity to speak in support of this important measure.



**SB-3042**

Submitted on: 2/25/2020 11:55:47 AM

Testimony for WAM on 2/25/2020 12:40:00 PM

**LATE**

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
J Ashman	Individual	Support	No

Comments: