

DAVID Y. IGE
GOVERNOR OF
HAWAII



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

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

**Testimony of
SUZANNE D. CASE
Chairperson**

**Before the Senate Committee on
AGRICULTURE AND ENVIRONMENT**

**Wednesday, February 12, 2020
1:30 PM
State Capitol, Conference Room 224**

**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 AGRICULTURE AND ENVIRONMENT

**FEBRUARY 12, 2020
1:30 P.M.
CONFERENCE ROOM 224**

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

Chairperson Gabbard 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 reseeded 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 and offers a comment.

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.

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 7, 2020

Senator Mike Gabbard, Chair
Senator Russell E. Ruderman, Vice Chair
Committee on Agriculture and Environment

Dear Chair Gabbard, Vice Chair Ruderman, 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.

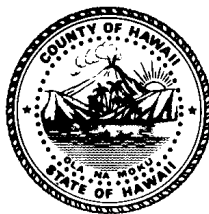
It can be discouraging to think of how many different invasive species are plaguing Hawai'i and with the possible exception (so far) of the parakeet problem, it seems that Hawai'i County has suffered a disproportionate share of the damage caused by invasive species, including rapid ohia death, little fire ants, coqui frogs, coffee berry borer, miconia, and now the two-lined spittlebug. But we cannot give up. 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

REBECCA VILLEGAS
Council Member
District 7, Central Kona



PHONE: (808) 323-4267
FAX: (808) 323-4786
EMAIL: 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 11, 2020

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

Committee on Agriculture and Environment

Wednesday, February 12, 2020

1:30 p.m.

Conference Room 224

Aloha Chair Gabbard, 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 Agriculture and Environment 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

SB-3042

Submitted on: 2/6/2020 10:58:35 AM

Testimony for AEN on 2/12/2020 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Carolyn Wong	Testifying for Pa'ahana Livestock LLC	Support	No

Comments:

My name is Carolyn Wong and I am a managing member of Pa'ahana Livestock LLC. I am writing to strongly support HB2532 relating to the Two Lined Spittle Bug. This new invasive species is devastating some of our most important pasture grass species (kikuyu and pangola) which supports about half of the cattle in the state if not more and its rate of spread is alarming. I have seen the damage this insect has on pastures. A rancher with no grass will not long remain a rancher. Agriculture and our agrarian landscapes are important to Hawaii's economy and environment. Well managed agricultural lands provide several ecological services including watershed function, clean air, invasive weed management, not to mention food sustainability and aesthetic value. Our agricultural lifestyle is also a huge part of the culture of Hawaii; a culture that values the inherent life in the land and the connection we have to it, a culture that promotes respect, cooperation and hard-work. This little bug and its effects can have much farther reaching effects than we can imagine.

This bill will help assist ranchers affected by this new devastating alien pest to manage it and nurse their lands back to health. It is extremely important that we move quickly to respond to the effects this is having on our landscapes. The more time that passes, the bigger the problem becomes. Invaded pastures lose all grass production within two years. The invasive weeds that follow the death of the grass are not edible by livestock. The pastures need to be replanted with a grass that is resistant to spittle bug.

My farm is in North Hawaii. Another 200,000 ac of pastures in Waimea, Kohala and Mauna Kea are kikuyu and pangola grass pastures that are at risk. If/When that bug reaches Waimea, it will be like a wildfire that will quickly get out of control unless we take action to prevent it and be prepared. Similar pastures in Hamakua, Hilo, Puna, Volcano and Ka'u are also at risk. God forbid this bug travel to the other islands.

Please support this bill and help us fight this.

Thank you.

Carolyn L. Wong

SB-3042

Submitted on: 2/6/2020 4:37:28 PM

Testimony for AEN on 2/12/2020 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Bobby Farias	Testifying for Hawaii Meats LLC, Hawaii Cattlemen's Council	Support	No

Comments:

I support the appropriation of funds for SB 3042.

SB-3042

Submitted on: 2/7/2020 5:43:22 AM

Testimony for AEN on 2/12/2020 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
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: 2/7/2020 8:59:18 AM

Testimony for AEN on 2/12/2020 1:30:00 PM

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

Comments:



February 6, 2020

Senator Mike Gabbard, Chair
Senator Russell E. Ruderman, Vice Chair
Senate Committee on Agriculture and Environment

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.)

Wednesday, February 12, 2020, 1:30 p.m., in Conference Room 224

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: 2/10/2020 2:33:49 PM

Testimony for AEN on 2/12/2020 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jimmy Greenwell	Testifying for Palani Ranch	Support	Yes

Comments:

My name is Jim Greenwell. I am past President of Palani Ranch Company in Kona and a member of its Board of Directors. I am also a past President of the Hawaii Cattlemen's Council which is testifying in strong support of SB3042 as am I.

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 an estimated 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 is totally and quickly killing our basic grasses (kikuyu and pangola) in the 2000 to 5000 ft elevation range. The resulting bare ground void is immediately filled with useless and rugged invasive species that are tough to eradicate making recovery of these grasslands extremely challenging.

Much of the rangeland we care for has been decimated by the spittle bug. What was excellent and well managed rangeland with over 95% grass cover and minimal weed infestation four years ago before the spittle bug today has less than 2% grass cover and is totally over run by invasive blackberry, pluchia, 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 fundamentally 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 adversely 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, habitat management, and wildfire mitigation.

I look forward to your hearing on February 12 to elaborate or respond to questions. Thank you for the opportunity to speak in support of this important measure.



SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT
February 12, 2020 – 1:30 PM - Room 224

RE: SB 3042 - Relating to Invasive Species – In Support

Aloha Chair Gabbard, Vice Chair Ruderman and Members of the Committee:

The Local Food Coalition **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.

Two-lined spittlebug was first detected in Kailua-Kona, on the Big Island of Hawaii in September of 2016 where it had caused damage to nearly 2,000 acres of pasture land. Monthly pasture surveys that began in November of 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.

The potential impact on the cattle industry could be devastating as the Two-lined Spittlebug was discovered at similar elevations to those of the areas around Waimea, where the majority of the cattle in Hawaii are raised. The Two-lined Spittlebug kills the grasses completely, providing conditions conducive for the growth of invasive species, weeds and lower forage quality grasses. Financial support is critically needed now to provide the necessary tools for controlling this pest. If research does not continue to find ways to stop the spread of the Two-lined Spittlebug, there could be a negative impact of local food production.

The Local Food Coalition is an organization comprising of farmers, ranchers, livestock producers, investors and other organizations working to provide Hawaii's food supply.

We respectfully request your support of SB 3042. Thank you for the opportunity to submit testimony.

John Garibaldi
808-544-8319
jgaribaldi@wik.com

Hawai'i Aquaculture &
Aquaponics Association
Hawai'i Cattlemen's Council
Hawai'i Farm Bureau
Federation
Hawai'i Farmers' Union
United
Hawai'i Food Industry
Association
Hawai'i Food
Manufacturers Association
Kohala Center
Land Use Research
Foundation of Hawai'i
Maui Farm to School
Network (Maui F2SN)
Ulupono Initiative
College of Tropical
Agriculture and Human
Resources - University of
Hawai'i at Manoa



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Phone: (808) 848-2074; Fax: (808) 848-1921
e-mail info@hfbf.org; www.hfbf.org

February 12, 2020

HEARING BEFORE THE
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

TESTIMONY ON SB 3042
RELATING TO INVASIVE SPECIES

Room 224
1:30 PM

Aloha Chair Gabbard, Vice Chair Ruderman, 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.



Email: communications@ulupono.com

SENATE COMMITTEE ON AGRICULTURE & ENVIRONMENT
Wednesday, February 12, 2020 — 1:30 p.m. — Room 224

Ulupono Initiative supports SB 3042, Relating to Invasive Species.

Dear Chair Gabbard 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



Hawaii Cattlemen's Council, Inc.

COMMITTEE ON AGRICULTURE AND ENVIRONMENT

Senator Mike Gabbard, Chair

Senator Russel E. Ruderman, Vice Chair

SB3042

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

Wednesday, February 12, 2020, 1:30 p.m.

Conference Room 224, State Capitol

415 South Beretania Street

Chair Gabbard, Vice Chair Ruderman and Members of the Committee on Agriculture and Environment,

My name is Nicole Galase and I am the Managing Director for the Hawaii Cattlemen's Council. We are writing to **strongly support SB3042** relating to 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.

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. 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.



SB3042

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

My name is Kristin Mack Almasin and I am the Livestock Manager for Ulupalakua Ranch on Maui. I am writing to **strongly support SB 3042**. We raise cattle that are kept for the local grass-fed beef market through Maui Cattle Company. One of the major grasses that is destroyed by the Two-Lined Spittlebug is Kikuyu grass which is the dominant grass species on over half of our grazing lands. Although we are not currently affected by the Two-Lined Spittlebug on Maui, we are actively in the process of preventing the spread to Maui, developing a monitoring program for our pastures for early detection, and researching alternative forage species that could fill the void left if the TLSB does decimate our Kikuyu grass pastures. We support this bill, because it would allow the local extension service to continue their research on this relatively new pest. It would also give us resources as ranchers to help prevent the TLSB from reducing the carrying capacity of our pastures, which could dramatically reduce our ability to supply quality protein to our local food system.

Thank you for your **support of SB 3042**.

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

SB3042, Relating to Invasive Species
Senate AEN Hearing
Wednesday, February 12, 2020
1:30 pm
Conference Room 224

Testimony by: Larry Jeffs
Position: Support

Chair Gabbard, Vice Chair Ruderman, and Members of the Senate AEN 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.



February 11, 2020

RE: HB342, relating to Two-lines Spittlebug

Aloha,

We would like to express our support for this measure, recognizing the serious threat posed by the introduced two-lined spittlebug and allocating funds to support HDOA in addressing this pest.

The two-lined spittlebug was only identified as a pest in Hawaii in 2016, when it had damaged 2,000 acres of ranch on the Big Island. By 2019, the number had grown to 150,000 acres. Unlike other pasture pests that we've had in Hawaii, the impacts do not recede with time. Affected ranchers have found 100% death of the grass after infestation, with no recovery. Instead, pastures are quickly invaded by aggressive brush species such as pamakani, fireweed, and blackberry, none of which are suitable for cattle forage.

Conservation partners with restoration work in pastures are also struggling with this threat. As pastures are restored to native forest, kikuyu and pangola act as "placeholders" until native species can be outplanted. These grasses are easy to control in those instances. The replacement weeds are a much more challenging and expensive problem, requiring significantly more time and effort to control.

TLNB is a threat to our food security, economy, environment, and culture, on the Big Island, and throughout the state. We urge you to respond decisively and provide the support needed for our researchers and ranchers to test and develop methods of controlling and recovering from TLNB.

Thank you for the opportunity to provide comments on this matter. Please contact me with any questions.

Frances Brewer
Communications Director
(808)933-3340
Fbrewer@hawaii.edu

SB-3042

Submitted on: 2/11/2020 10:14:47 PM

Testimony for AEN on 2/12/2020 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Ronald Weidenbach	Testifying for Hawaii Aquaculture & Aquaponics Association	Support	No

Comments:

The HAAA testified in strong support of SB 3042. This measure is critical for Hawaii's pastures and cattlemen. Please support!

SB-3042

Submitted on: 2/7/2020 5:54:01 AM

Testimony for AEN on 2/12/2020 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Theresa M Thompson	Individual	Support	No

Comments:

I **strongly support SB3042** to appropriate funds to help ranches recover from the devastating impacts of the Two-lined Spittlebug. It is imperative that we control the spread of this invasive species and restore pasture to avoid runoff and the proliferation of noxious weeds.

SB-3042

Submitted on: 2/7/2020 6:14:13 AM

Testimony for AEN on 2/12/2020 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Gregory FRIEL	Individual	Support	No

Comments:

SB-3042

Submitted on: 2/7/2020 7:57:06 AM

Testimony for AEN on 2/12/2020 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Harry von Holt	Individual	Support	No

Comments:

SB-3042

Submitted on: 2/7/2020 11:14:24 AM

Testimony for AEN on 2/12/2020 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Woody Child	Individual	Support	No

Comments:

I am retired from a general medical practice after 35 years in Honokaa. I now consider myself engaged in climate change issues. This relates to the two lined spittlebug infestation of the Kona pastures by considering the opportunity of reforesting these degraded pasturelands for the purpose of carbon sequestration as well as plant based agriculture, environmental and cultural restoration. Over the past year I have had several conversations with Mark Thorne, UH Extension Agent for Rangeland and Cattle about the two-lined Spittlebug infestation. This has left me with the impression that eradication is impossible and control will be extremely challenging. I refer you to the following three recent and brief articles.

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

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

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

In light of this somewhat dismal perspective on control I had proposed a Bill for Legislature which I failed to present in time for introduction, but then re-crafted for presentation to Hawaii County Council. (SEE BELOW) That Bill reflects the perspective that we are beyond any practical point of widespread restoration of pastures that have already been degraded, though this theoretically might be done with huge effort and expense. Any realistic effort at control would be to attempt to retard the spread of this insect further north and east to the pastures of Hamakua and Kohala. A difficult decision arises in considering the spreading boundaries of infestation and use of pesticides. Some limited use, as described in the articles above may be appropriate. However, over time, I foresee futility in such a strategy, with the expense of damage to other ecosystems which comprise these pasturelands. My proposal is that these degraded pasturelands would be better served by conversion to forested lands for the purpose of Carbon Sequestration, and plant based agriculture and environmental and cultural restoration. My proposal is that Legislature fund a study of the methods and resources necessary to achieve that goal. Ultimately such a study would be underpinned by the necessity for government to work together with Cattlemen to achieve the goal of restoration of the Aina to its greatest potential for service to human and natural environment. Concomitantly this should be of service to the custodians of these pasturelands. I had originally crafted my Bill with the intent of offering an alternative to the Cattlemen's proposals to 'control and mitigate' this infestation, which I had interpreted to be futile. Now, after discussions with Big Island Invasive Species officers and other authorities, I have restored confidence that any effort toward control will be guided by sensitive understanding of the environmental components at play in this challenge.

I had originally described the following choice between the Cattlemen's proposal for 'control and mitigation' and my desire to see reforestation of these degraded pastures. "It is my impression that we are facing a watershed moment in our response to, on one hand, the Climate Emergency, and on the other, the two lined spittlebug invasion, the moment where we will have to choose between two futures. On one hand are the efforts to preserve the valued and cherished traditions which began with the Paniolo, the beautiful images of rolling pasturelands and the substantial economic base of the cattle industry. On the other is a future which confronts, with full commitment, the prospect of societal, resource and environmental collapse which has been described uniformly by our climate scientists and governmental and moral authorities and the United Nations and its Intergovernmental Panel on Climate Change. This prospect of a future which demands our immediate and full commitment to engage, was described to the Hawaii County Council so clearly by Dr. Charles Fletcher of the UH SOEST several weeks ago. (See that 1hr 15min presentation entitled 'The Next Few Years Will Be The Most Important in Human History' here:

https://www.youtube.com/channel/UCjLzUPr31k14_8SQKhU_Z9w) This will be, for some, a difficult choice. Not so for me. But it is a choice which begins right now in our response to the emergence of this two-lined spittlebug in Hawaiian Pasturelands.” (earlier communication).

I now perceive that the two poles of this choice can and must intermingle to the advantage of the environment and the goals which I have perceived as maximal carbon sequestration, food security and environmental restoration. I now propose endorsement of the Cattlemens proposal with two important amendments.

The first amendment is to ensure that the possibility of reforestation of degraded pasturelands is presented to the ranchers and custodians of these lands in a way that would allow this option to be approached realistically.

The second amendment ensures that the public is well informed of the strategies in use to ‘control and mitigate’ the advance of this infestation. This is most relevant to the use of pesticides in these control strategies in that the public is highly interested, as it should be, in the application of this strategy.

I would welcome a further amendment that might encourage the Hawaii County Council to request testimony in its chambers from various sources of expertise on this issue both now and at the various junctures where reconsideration of the strategies of control might be necessary. The forum of the County Council, though perhaps not the residence of authority in these issues, has a role to play in bringing these issues to the public of the Big Island and allowing the public’s expressions to help shape policy decisions.

I THEREFORE PROPOSE THE FOLLOWING AMENDMENTS TO HB2532

- 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

PREVIOUSLY PROPOSED BILL FOR HAWAII COUNTY COUNCIL:

TWO LINED SPITTLEBUG DEGRADED PASTURE TO FORESTRY RECLAMATION STUDY ACT

Whereas the Two Lined Spittlebug infestation of pasturelands in the North and South Kona Districts of Hawaii Island threatens to severely impact the capability of these lands to sustain a thriving cattle and ranching industry by attacking the primary grazing grass of these pastures;

And whereas the Two Lined Spittlebug infestation was discovered in 2016 on 2000 acres in South Kona and has now spread to over 125,000 acres in the North and South Kona areas;

And whereas this infestation threatens imminent spread to the pasturelands of Kohala and Hamakua;

And whereas the Department of Land and Natural Resources and UH Agricultural Extension Service has been unable to retard the spread of this infestation but has concentrated its response on designing adaptation strategies for the Ranching industry;

And whereas the downsizing of Cattle herd size and numbers in the affected areas will likely become necessary in the near future;

And whereas the County of Hawaii has responded to the immanent threat of Climate Change with a County Council Resolution recognizing an existential 'Climate Emergency' with recommended invocation of strategies toward mitigation and adaptation;

And whereas 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;

And whereas 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;

And whereas the following data, taken directly from a recent presentation to the Hawaii County Council by Dr. Charles Fletcher, Climate Scientist at University of Hawaii School of Ocean and Earth Sciences and Vice Chairman of the Honolulu Climate Commission, reflects the effects of the Cattle Industry on the natural environment

1. Producing beef generates 100x more GHG 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.

And whereas all of the pastureland on Hawaii Island was previously forested prior to the introduction of cattle, reforestation would be a practical response in the efforts to mitigate the effects of climate change;

And whereas a significant portion of the youth and young adults are wanting to actively engage the challenges they are facing in a future with climate change, and would be willing and anxious to participate in reforestation projects, therefore the identification and availability of desirable lands for these projects must be undertaken;

And whereas the confrontation with, and adaptation to, Climate Change will eventually force the relocation of much of Hawaii's workforce from Visitor Industry to Agricultural and reforestation work, the available land areas for agriculture and forestation must be expanded;

It is therefore ordered that the Department of Land and Natural Resources along with the University of Hawaii Extension Services initiate a study to determine the feasibility of procurement by lease arrangement or purchase those ranching lands which have been severely impacted by the two lined Spittlebug Infestation for the purpose of reforestation as a strategy of climate change mitigation and adaptation and food security and environmental restoration. Where more practical, the offering of incentives to private landowners for the planting of trees with the purpose of greenhouse gas sequestration should be studied. This will include consideration of planting orchards or 'food forests' as food availability is becoming recognized as among the greatest challenges we will be facing due to consequences of climate change.

SB-3042

Submitted on: 2/10/2020 3:54:16 PM

Testimony for AEN on 2/12/2020 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Edgar Spencer	Individual	Support	No

Comments:

My ranch on the Big Island has been in our family since 1952. I'm now retired and have spent the last 5 years, with the help and guidance of the NRCS, rebuilding the ranch. Aside from the needed infrastructure improvements, much of the efforts are concentrated on soil improvements and proper grazing practices to ensure a sustainable future for the ranch. I believe my ranch now has a better chance of growing the grass critical to raising cattle. I'm alarmed that we are now faced with the possible catastrophic loss of that grass due to the invasive species, the two-lined spittle bug.

I'm still dealing with the invasive Fireweed on my ranch.

My wife and I are also part owners of a coffee farm, which was started by her parents in 1947. We've experienced the devastation caused by the coffee borer. The farm has gone from a functioning, productive farm providing income to help her parents raise a large family in the 50's and 60's, to a hobby farm, barely producing enough coffee to be worth harvesting.

I strongly support of SB3042. It's becoming more difficult to keep small agriculture viable in Hawaii. Any help we can get to overcome new, unforeseen challenges would be much appreciated.

SB-3042

Submitted on: 2/10/2020 5:58:13 PM

Testimony for AEN on 2/12/2020 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
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. ##limit the entry of invasive species to Hawaii's fragile ecosystem.

Thank you for the opportunity to present my testimony.

Andrea Quinn

Kihei, Maui

SB-3042

Submitted on: 2/10/2020 5:33:47 PM

Testimony for AEN on 2/12/2020 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Katherine Buckovetz	Individual	Support	No

Comments:

Save our Aina. We need pastures and forests to survive on this rock and continue our efforts towards self sustainability. As a Kapuna Wahine, we need to save our Homeland for our ancestors and our keiki.

SB-3042

Submitted on: 2/11/2020 12:34:01 PM

Testimony for AEN on 2/12/2020 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Andrew Stever	Individual	Support	No

Comments:

SB-3042

Submitted on: 2/11/2020 5:47:49 PM

Testimony for AEN on 2/12/2020 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
J Ashman	Individual	Support	No

Comments: