



# OFFICE OF PLANNING STATE OF HAWAII

DAVID Y. IGE  
GOVERNOR

MARY ALICE EVANS  
DIRECTOR  
OFFICE OF PLANNING

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Statement of  
**MARY ALICE EVANS**  
Director, Office of Planning  
before the  
**HOUSE COMMITTEE ON CONSUMER PROTECTION AND COMMERCE**  
Thursday, February 25, 2021  
2:00 PM  
Via Videoconference

in consideration of  
**HB 96**  
**RELATING TO AGRICULTURAL BUILDINGS.**

Chair Johanson, Vice Chair Kitagawa, and Members of the House Committee on Consumer Protection and Commerce:

The Office of Planning **supports** HB 96 which would amend Hawaii Revised Statutes (HRS) § 46-88 (a) to increase the maximum area for each agricultural shade cloth structure, cold frame, and greenhouse exemptions from building permit and building code requirements from 20,000 to 60,000 square feet in size.

This measure is needed to promote the expansion and continued growth of various agricultural uses and activities on agricultural lots.

Thank you for the opportunity to testify.

**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 HOUSE COMMITTEE ON CONSUMER PROTECTION AND  
COMMERCE**

**FEBRUARY 25, 2021  
2:00 P.M.  
VIA VIDEO CONFERENCE**

**HOUSE BILL NO. 96  
RELATING TO AGRICULTURAL BUILDINGS**

Chairperson Johanson and Members of the Committee:

Thank you for the opportunity to testify on House Bill 96. This measure amends Section 46-88, HRS by increasing the maximum area from 20,000 square feet to 60,000 square feet for each agricultural shade cloth structure, cold frame, and greenhouse that could qualify the structure for exemption from building permits and building code requirements. The Department of Agriculture supports this measure as it appears to be clearly limited to agricultural structures meant for agricultural production and not to other buildings that may be used for purposes not related to agricultural activities.

Thank you for the opportunity to testify on this measure.





# UNIVERSITY OF HAWAII SYSTEM

## Legislative Testimony

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Testimony Presented Before the  
House Committee on Consumer Protection and Commerce  
Thursday, February 25, 2021 at 2:00 p.m.

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

### HB 96 – RELATING TO AGRICULTURAL BUILDINGS

Chair Johanson, Vice Chair Kitagawa, and members of the House Committee on Consumer Protection and Commerce:

Thank you for the opportunity to provide testimony in strong support of HB 96. Our testimony relates to Section 1 (a) (3), (4) and (7) that apply to controlled environment agricultural (CEA) structures and other farm structures. This is similar testimony to that provided for SB 489.

CEAs need to be an important component of agriculture in Hawai'i's future. The advantages of CEAs include:

- protection from insects and, hence, plant disease vectors;
- protection from invasive plants as pests;
- more efficient use of water resources (particularly where hydroponics is used within the structures);
- more efficient use, and hence less use, of pesticides required to control insect and plant pests;
- higher production per square foot of ground;
- higher quality of product allowing a better price and more income for the operator; and,
- easier and more efficient manner of meeting food safety requirements.

As an example of the advantage of a shade house CEA based on research from the College of Tropical Agriculture and Human Resources, a CEA resulted in:

- a 50% reduction in insecticide use, and
- up to a 7-fold increase in marketable yields of cucumber, kale and zucchini.

This bill expands the opportunity and ease of increasing the CEA structures in Hawai'i. Given the known advantage of such structures, this bill has the potential to have a significantly large effect on Hawai'i agriculture.

Aquaculture/hydroponics can also be seen as a CEA structure. Approximately 63% of our seafood is imported (<https://hdoa.hawaii.gov/ai/aquaculture-and-livestock-support-services-branch/aquaculture-in-hawaii/> ). Aquaculture/aquaponics can be a growth industry in Hawai'i. This bill provides for a greater efficiency and ease of increasing the aquaculture/aquaponics industry.

We strongly support the concept of increasing the permissible size of these structures that are exempt from building permits and building code requirements. We understand that this is an important move to improving Hawai'i agriculture. However, we defer to the proper engineering/permitting authorities as to the details of such a bill.



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February 25, 2021

HEARING BEFORE THE  
HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE

**TESTIMONY ON HB 96**  
RELATING TO AGRICULTURAL BUILDINGS

Conference Room 329  
2:00 PM

Aloha Chair Johanson, Vice-Chair Kitagawa, 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 96**, which would allow certain larger agricultural shade cloth structures, cold frames, or greenhouses to qualify for an exemption from building permit and building code requirements.

The agricultural building permit exemption statute was developed over years of intense discussion between legislators and stakeholder groups including diversified crop farmers, ranchers, aquaculturists, firefighters, county planning departments, and many others. The purpose of this effort was to help Hawaii's agricultural producers become more efficient and grow, in order to further the State's goal of doubling food production and becoming more self-sufficient.

The foremost consideration when considering exemptions is to ensure the safety of building occupants, neighbors, and the general public. Importantly, the proposed amendment is strictly limited to only certain low-risk agricultural structures. Allowing these larger structures is appropriate and necessary, as modern agriculture evolves towards using bigger and more cost-effective protective structures to shelter crops from pest infestation, extreme temperatures, excessive rains, or long droughts, and hungry feral animals.

Although the entire chapter is not copied within the bill, please note that these larger structures must still comply with all applicable state and county zoning codes. In addition, no electrical power or plumbing systems can be connected to the structure without first obtaining the appropriate county permits, and any wastewater disposal must comply with State department of health regulations.

Thank you for your continued support for Hawaii farmers and ranchers.

**HB-96**

Submitted on: 2/23/2021 11:57:21 AM

Testimony for CPC on 2/25/2021 2:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
John Seward	Hawaii Farming LLC	Support	No

Comments:

Dear Representatives of the House Committee on Consumer Protection and Commerce

We respectfully submit this testimony in support of HB96.

I am a co-owner/managing member of Hawaii Farming LLC, a large-scale commercial greenhouse farming operation on the Big Island growing local food safety certified vegetables which are distributed to consumers across the State of Hawaii. We have 60 employees based on 50 acres in the agriculture dedicated zone of Lalamilo in Waimea, and our products include several varieties of cucumbers (the Keiki Cukes and Kamuela Cucumbers brands) and tomatoes.

Hawaii Farming LLC fully supports HB96 for the following reasons:

- this bill is an important step to support sustainable local food safety certified agriculture production in Hawaii by strengthening the ability of farmers to successfully deploy modern farming technology in greenhouses on a larger scale.
- a Hawaii building code/building permit exemption already exists for agricultural shade cloth, cold frame and greenhouse structures. The bill simply increases the maximum area from 20,000SF to 60,000SF for each such agricultural structure that could qualify for this existing exemption. The bill is limited only to agriculture structures for agricultural production, and not for other building types.
- larger square footage commercial greenhouses wrapped in fire resistant polycarbonate panels have become market standard worldwide enabling farmers to best achieve larger scale crop production while conserving natural resources and effectuating best in class pest containment.
- our further expansion and diversification plans in modern greenhouses and associated technologies have been slowed partially due to the current language and processes (including complex 'exemption' processes requiring various approvals under a declaration of compliance form) relating to greenhouses in the State and County legislation/codes. HB96 under State legislation would be an efficient and effective step to benefit local farmers to progress the above goals. It is an important factor allowing us to expedite additional local farming investment which maximizes the use of our limited ag land while complying with important safety principles.

- this bill will further foster sustainable increased local food production aligned with the Hawaii goal of food self-sufficiency. Equally important is the progress this bill will enable in strengthening consumer protection and trust across Hawaii with a greater supply of local fresh vegetables grown in modern sealed greenhouses with best in class containment mechanisms to protect against pests and diseases. This bill will also benefit the local community with additional high-tech farming jobs.

Thank you for your consideration of HB96 - we are grateful for the opportunity to provide this testimony.

February 23, 2021

Respectfully

John Seward

Co-Owner/Managing Member

HAWAII FARMING LLC

Phone: [\(808\) 260-0789](tel:(808)260-0789)

E-mail: [john@hawaiifarming.com](mailto:john@hawaiifarming.com)

66-1247 Lalamilo Farm Rd

Kamuela, HI 96743

**HB-96**

Submitted on: 2/23/2021 11:57:58 AM

Testimony for CPC on 2/25/2021 2:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
vincent george batha	big island produce llc	Support	No

Comments:

I am in strong support of HB2192, as it will make farming on the big island more productive and profitable for farmers and help get Hawaii to its self-sustaining food production goals.

In modern greenhouse production, scale is everything. Small greenhouses (less than 1 acre) are important but more suitable for growing at a farmers market level. For production to reach the purchasing needs of the Hawaiian Island market, large economical greenhouses are needed. Growing crops in greenhouses for wholesale purchase in the islands requires facilities that are large enough to grow thousands of pounds of produce daily. Cucumber production for example needs to have 6 crops at different stages of life constantly growing in order to have a steady supply of cucumbers every day. If the greenhouses were only 20,000 sq ft, it would take 12 greenhouses each with extra setbacks around the house and would not be an economical use of land. Added to that, the extra costs associated with building small individual greenhouses compared to large greenhouses is substantial.

Raising the size of exempted greenhouses to at least 60,000 sq ft would drastically cut construction costs and conserve land that would be needed for open areas between many smaller greenhouses.

FYI

Why not just go through the building permit process for these larger footprint buildings?

The current interpretation being used by the county planners requires buildings larger than the 20,000 sq ft code exempted greenhouses to have huge setbacks from property lines and adjacent buildings of any type if they are constructed with anything more than a polyethylene covering. Polyethylene or "poly" for short is a clear lightweight plastic like saran wrap and it will not hold up in Hawaii with our strong winds and direct sunshine. The alternative, Polycarbonate, (the clear stuff over your lanai) will hold up

for 15 years and does not have to be changed every windstorm at tremendous cost to the farmer and burdens to our landfills for the ruined poly. Unfortunately the county building department forces a greenhouse with this polycarbonate covering to have 60' setbacks all around the perimeter of the greenhouse.

This code interpretation by the county building department is based on the flammability of poly vs polycarbonate. This is an outdated concept as modern polycarbonate used on greenhouses will not self sustain burning but polyethylene will not only burn, but burn hot and fast and does not need a fire source to keep it burning.

Rather than go through a lengthy code revision, this simple change to allow up to 60,000 sq ft greenhouses to be built without permits would solve this problem. These greenhouses are built on agricultural land with very little around them but other ag land. The restrictive setbacks that are currently being enforced are removing valuable producing farmland from our farmers. Remember, greenhouses need to be put on level land and Hawaii does not have an abundance of this in agricultural zoning especially on the Big Island.

I am in strong support of HB 2192 as it will make farming on the big island more productive and profitable for farmers and help to get Hawaii to it's self sustaining food production goals.

Vince Batha

Big Island Produce asset holdings llc

Testimony of  
**Alec Sou or Aloun Farms**  
on  
**H.B. No. 96**  
**Relating to Agricultural Buildings**  
Committee on Consumer Protection & Commerce  
Thursday, February 25, 2021, 2:00 p.m.  
Room 329

Thank you for the opportunity to testify in support of H.B. No. 96, which proposes to increase the size of greenhouse structures that are exempt from building permit and building code requirements from 20,000 square feet to 60,000 square feet.

Viable and growing agricultural operations now have to be able to compete on a large scale. A few years ago, Aloun Farms received a proposal from an agricultural operation called Noroo, proposing an agricultural operation involving the building of three greenhouses, each 1 hectare in size (107,639.4 sq. ft.). The main concern when we approached the City was that the buildings were commercially designed and manufactured, and met the electrical code requirements.

We support the intent of H.B. No. 96, and ask that you consider removing the size limit and establish compliance with electrical and perhaps plumbing requirements. The size should be determined by what the operator is willing to invest in the operation.

Thank you for the opportunity to testify on H.B. 96.



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

HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE  
Thursday, February 25, 2021 — 2:00 p.m.

**Ulupono Initiative supports HB 96, Relating to Agricultural Buildings.**

Dear Chair Johanson and Members of the Committee:

My name is Micah Munekata, and I am the Director of Government Affairs at Ulupono Initiative. We are a Hawai'i-focused impact investment firm that strives to improve quality of life throughout the islands by helping our communities become more resilient and self-sufficient through locally produced food; renewable energy and clean transportation; and better management of freshwater and waste.

**Ulupono supports HB 96**, which increases the maximum area of agricultural shade cloth structures, cold frames, and greenhouses that can qualify for an exemption from building permit and building code requirements.

As Hawai'i's local food issues become increasingly complex and challenging, local producers will need additional resources and support to address and overcome them. Ulupono supports efforts to increase local food production here in the state, while also decreasing and eliminating the hurdles that exist for those looking to invest in new opportunities for Hawai'i agricultural production. Section 46-88, Hawai'i Revised Statutes, allows local food production operations to bypass an unnecessarily lengthy and costly permitting process.

We believe that opening the door to new investments in agricultural infrastructure will directly support more local food production and an economically robust homegrown agriculture industry, which strengthens our community with fresh, healthy food.

Thank you for this opportunity to testify.

Respectfully,

Micah Munekata  
Director of Government Affairs

*Investing in a Sustainable Hawai'i*

**HB-96**

Submitted on: 2/25/2021 12:32:33 PM

Testimony for CPC on 2/25/2021 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Nancy Jones	Hydroponics Alternatives LLC	Support	No

Comments:

**February 25, 2021: Testimony In Support of HB96 (companion to SB489)**

Aloha Chair Ling Johanson, Vice-Chair Kitagawa, and Committee Members:

I submit this testimony in STRONG SUPPORT of HB 96 (companion to SB489) relating to Agricultural Buildings as a longtime hydroponics greenhouse farmer. In 2012, my family and I returned home to Wai`anae to farm after teaching greenhouse construction and hydroponics practices to farmers around the world on various USAID and UN projects for over 15 years. Hawai`i's lack of food security was and remains a grave concern for us. Indeed, we have been told more than once in the past 9 years -- that non-military personnel in Hawai`i may only have sufficient food supplies for 1 week! So, once we acquired a farm lot, we anticipated constructing a greenhouse(s) to maximize production on our rocky, hillside farm lot along with a packing house. However, we NEVER dreamed that it would take us from approximately 2016 until now to obtain a permit from the City and County of Honolulu for our 20,400 square foot greenhouse. We purposely chose a greenhouse/packing house manufacturer from South Florida, that engineers structures to withstand hurricane wind-loads. This Florida company, a member of the American Society of Steel Fabricators, provided Structural Calculations certifying our structures could withstand – a minimum of 110 MPH. Yet, the Florida and U.S. certification was not sufficient for Hawaii and we had to pay a HAWAII plan-reviewer/architect to restamp our plans AND the structural calculations at a cost of \$10,000 before submitting everything to the City where we have incurred costs for numerous re-drawings, re-printings, AND resubmittals – sometimes for simple things like misspelled words. Yet, we STILL – to this day – have received NO approval from the City of Honolulu so we can complete the electrical installation on our greenhouse structure, install the roof structure, AND actually produce a crop of tomatoes to replace those that so MANY Honolulu wholesalers import from Mexico or California! Meanwhile, BILLIONAIRE Larry Ellison seems to have had ZERO problems with Maui County in erecting his structures and producing crops on Lana`i. In addition, the interest on our loan is now astronomical! “Frustrated” does not even begin to describe our feelings about trying to farm within the stranglehold of the City of Honolulu’s Permit Office.

To make language clearer regarding structural requirements, any confusing language should be omitted with reference to “no more than one thousand square feet in floor

area” for Section 1 (a) AND in Section 1(a)(3) “Notwithstanding the one thousand square foot area restriction...” Any agricultural related structure that falls within the sixty thousand (60,000) square foot requirement should remain exempt.

I also recommend inserting language that specifies a 90-day time limit for certification of any agricultural-related County or State permits.

While farmers should be required to obtain ELECTRICAL permits for ag. structures, they should NOT be required to follow “plumbing codes” or “water engineering requirements” other than the mandatory annual passing of a backflow preventer operational test. Any irrigation installed on AG land, should be exempt from County zoning requirements. Farmers change irrigation methods every time they change a crop – in some cases. Agreed, however, there should be a separation and regulation about water supplies versus fertigation systems.

In addition – why have a State law that can be superseded by County zoning codes? If this is the case, then as happened before to us, the County of Honolulu can simply say they “know nothing about this State law.” If framed structures are for agricultural production only, as long as they are manufactured in compliance with United States steel fabricators or other nationally-recognized standards, Hawai`i’s farmers should be allowed to construct these on any lands zoned as “AG” – for agriculture. THIS should be the only State or County zoning restriction apart from electrical permits and windload requirements (see below).

FINALLY – for any agricultural structures, I recommend that language be inserted in your bill that such enclosed greenhouse structures (i.e. plastic, corrugated polycarbonate, fiberglass, et al.) should be designed to withstand a minimum of 110 mile-per-hour windloads. Any and all structural documents should conform to a United States National Standard and not just a Hawai`i standard – since Hawai`i’s experience with greenhouse is quite limited when compared to states like Florida.

For all of the above reasons, I respectfully urge your committee to support HB96 and please pass this out of your Committee with the proposed language changes that will effectively improve food security for all Hawai`i residents. Thank you very much for this opportunity to present testimony to allow all Hawai`i farmers to increase their production using protected agricultural structures – albeit a bit late.

**HB-96**

Submitted on: 2/25/2021 12:25:20 PM

Testimony for CPC on 2/25/2021 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Zeb Jones	Individual	Support	No

Comments:

**Feb. 25, 2021: Testimony Supporting HB96 (companion to SB489)**

Aloha Chair Ling Johanson, Vice-Chair Kitagawa, and Committee Members:

I am submitting this testimony to STRONGLY SUPPORT HB 96 (companion to SB489) relating to Agricultural Buildings as a longtime hydroponics greenhouse farmer. In 2012, I returned home to Wai`anae to farm with my family after teaching greenhouse construction and hydroponics practices to farmers around the world on various USAID and UN projects for over 15 years. Hawaii's lack of food security was and remains a grave concern for us. So, once we acquired a farm lot, we anticipated constructing a greenhouse(s) to maximize production on our rocky, hillside farm lot along with a packing house. However, we NEVER dreamed that it would take us from approximately 2016 until now to obtain a permit from the City and County of Honolulu for our 20,400 square foot greenhouse. We purposely chose a greenhouse/packing house manufacturer from South Florida, that engineers structures to withstand hurricane wind-loads. This Florida company, a member of the American Society of Steel Fabricators, provided Structural Calculations certifying our structures could withstand – a minimum of 110 MPH. Yet, the Florida and U.S. certification was not sufficient for Hawaii and we had to pay a HAWAII plan-reviewer/architect to restamp our plans AND the structural calculations at a cost of \$10,000 before submitting everything to the City where we have incurred costs for numerous re-drawings, re-printings, AND resubmittals – sometimes for simple things like misspelled words. Yet, we STILL – to this day – have received NO approval from the City of Honolulu so we can complete the electrical installation on our greenhouse structure, install the roof structure, AND actually produce a crop of tomatoes to replace those Honolulu wholesalers import from Mexico or California! Meanwhile, BILLIONAIRE Larry Ellison seems to have had ZERO problems with Maui County in erecting his structures and producing crops on Lana`i. In addition, the interest on our loan is now astronomical! “Frustrated” does not even begin to describe our feelings about trying to farm within the stranglehold of the City of Honolulu's Permit Office.

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For all of the above reasons, I respectfully urge your committee to support HB96 and please pass this out of your Committee with the proposed language changes to allow all Hawai`i farmers to increase their production using protected agricultural structures. This will effectively improve food security for all Hawai`i residents. Mahalo for this opportunity to present testimony – albeit a bit late.

Zebuel "Zeb" Jones, PO Box 1462, Wai`anae, HI 96792