JOSH GREEN, M.D.
Governor

SYLVIA LUKE
Lt. Governor

SHARON HURD
Chairperson, Board of Agriculture

DEAN M. MATSUKAWA
Deputy to the Chairperson

State of Hawai'i
DEPARTMENT OF AGRICULTURE
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TESTIMONY OF SHARON HURD
CHAIRPERSON, BOARD OF AGRICULTURE

BEFORE THE SENATE COMMITTEE ON
AGRICULTURE & ENVIRONMENT

JANUARY 29, 2025
1:00 P.M.
CONFERENCE ROOM 224 AND VIDEOCONFERENCE

SENATE BILL NO. 352
RELATING TO PESTICIDES

Chairperson Gabbard, Vice-Chair Richards, and Members of the Committee:

Thank you for the opportunity to testify on Senate Bill 352 relating to pesticides. The bill requires the Department of Agriculture to use consistent units of measurement in its summary to the public on the amounts of restricted use pesticides (RUPs) used and establishes a one-half mile buffer zone for pesticides around schools and state and county public parks. The Department offers comments on this bill.

Based on previous bills and requests by stakeholders, as of the 2023 reporting year, the Department has updated its reporting units (2023-RUP-Use-Report-updated.pdf) to pounds of active ingredients for all RUPs reported.

With the passage of Act 45 and the enactment of buffer zones, the Department found unintended consequences. Utility poles were not able to be treated for mold and mildew during school hours using RUP products. Water treatment plants which used chlorine gas, could not operate wells that were within 100 feet of a school during school hours. Chlorine gas is classified as a Restricted Use Pesticide (RUP).

The Department found two (2) drinking water wells which fell into this category. The Department notified the Department of Water Supply in Hawai‘i County, that they were in violation of HRS149A-28. These wells were shut down and others in different parts of the county were switched to different chlorine products at additional costs. With the expansion of buffer zones to one-half miles, the Department has tentatively identified at least 26 more water treatment wells that would need to be shut down or would have to change to a different type of treatment. Expanding the buffer zones would include far more utility poles than drinking water wells.

Concerningly, there are no time restrictions for the buffer zones around parks, unlike the schools. As such, no RUPs, including the previously mentioned products, would ever be able to be used within a half mile of a park and would produce devastating consequences to our state's infrastructure and potentially to the quality and safety of drinking water in Hawai‘i County. The restriction of these products, along with many other formulations such as granules and rodent bait blocks, does not serve the purpose of section 149A-28, HRS, as they have little to no potential to drift.

In addition, the Department has initiated some preliminary analysis, the following are the number of agricultural parcels which will be affected by the increased buffer zones:

- Kaua‘i – 6 parcels
- O‘ahu – 20 parcels
- Moloka‘i - 1 parcel
- Maui – 4 parcels
- Hawai‘i – 20 parcels

Should buffer zones be increased, the Department recommends the need to clarify what pesticide formulations and application methods are or are not allowable and exclude the formulations, such as granules, rodent bait blocks, and certain fumigants that have little to no potential to drift.

Finally, the Department is currently involved in conducting a drift monitoring study, as required by Act 45, SLH 2018. Since that study is intended to determine whether drift is taking place, and how far the impact of drift is occurring within schools, it would be prudent to wait for the results of that study to determine the drift potential in Hawai‘i, rather than using distances provided from mainland counterparts with hugely different geography, ecology, and use patterns. The report is expected to be completed in 2028.

Thank you for the opportunity to testify on this measure.

RICHARD T. BISSEN, JR.
Mayor

JOSIAH K. NISHITA
Managing Director

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TO: Representative Mike Gabbard, Chair
Representative Herbert M. "Tim" Richards III , Vice Chair
Committee on Agriculture and Environment

FROM: Richard T. Bissen, Jr., Mayor
Rogerene Arce, Director of Agriculture

DATE: January 28, 2025

SUBJECT: **SUPPORT OF SB352, RELATING TO PESTICIDES**

Thank you for the opportunity to testify in **SUPPORT** of this important measure. The Act Requires the Department of Agriculture to use consistent units of measurement in its summary to the public on the amounts of restricted use pesticides used. Establishes a one-half mile buffer zone for pesticides around schools and state and county public parks.

We **SUPPORT** this measure for the following reasons:

1. This bill protects our public and our most vulnerable community, more specifically our keiki, from the neurological deficits and acute health effects pesticides are scientifically associated with.
2. Many communities across our Pae ʻĀina are negatively impacted when exposed to pesticide drift. There must be more done to protect our public health and safety and the wellness of our environment. This is a small step in the right direction.
3. There have been studies conducted that show certain pesticides are known to drift over a mile, which is an incredibly hazardous situation, considering many of the pesticides are systemic.

Mahalo for your consideration in supporting this measure.

Senate Committee on Agriculture and Environment

Hawai'i Alliance for Progressive Action (HAPA) Strongly Supports: SB352

Wednesday, January 29th, 2024 1 p.m. Conference Room 224

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

HAPA strongly supports SB352, Requires the Department of Agriculture to use consistent units of measurement in its summary to the public on the amounts of restricted use pesticides used. Establishes a one-half mile buffer zone for pesticides around schools and state and county public parks.

The buffer zone proposed in SB352 will provide a buffer between children in school and the use of highly toxic Restricted Use Pesticides (RUPs) that is supported by peer-reviewed epidemiological research. This measure aims to provide a small layer of protection for Hawai'i's children from the potential impacts of highly toxic RUPs drifting through their schools by increasing RUP buffer zones schools from 100 feet to ½ mile during school hours and around parks where our keiki recreate.

Despite mounting evidence of the dangers even more common general use pesticides, such as RoundUp/Glyphosate, have on children's health[1]; **this measure would not impact any general use pesticide application or provide buffers for use.** This measure only applies to the State listed class of highly hazardous toxic pesticides that are already restricted in Hawai'i (RUPs).

Background

HAPA was founded in response to community members living near large agrochemical fields asking for the right to know what pesticides are being used adjacent to their homes, schools, waterways and other sensitive areas. After over a decade-long effort to provide residents with clear information on what they may be exposed to, the implementation of Act 45 still has not provided communities with that information.

We applaud the legislature and the Ige Administration for taking the important first step of establishing 100 foot RUP buffer zones around schools during school hours in 2018

by passing Act 45 and starting to require self reporting along with the ban on Chlorpyrifos. However, an abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for extending these buffer zones to ensure even greater protections for Hawaii's children as well as school teachers and staff.

[1] Evslin, Lee MD (2021) Breakfast at Monsanto's

It is worth noting that although California has enacted similar legislation requiring ¼ mile pesticide buffer zones around schools, the farmworkers and communities living near agricultural areas had originally advocated for 1 mile buffer zones due to the abundance of research documenting pesticide drift and related health impacts up to a mile or further from the fields where they were applied. If Hawaiʻi enacts ½ mile buffer zones we will lead the nation on RUP buffers protecting our children in schools.

The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure. [2]

We are very concerned about long-term pesticide exposure at school [3], which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions. Public and scientific research is increasingly raising concerns about the combined effects of pesticide "cocktails," or exposure to mixtures. In the last six years, pesticide companies submitted over 140 patents containing multiple active ingredients, 96 of which "had at least one … application that claimed or demonstrated synergy between the active ingredients in the product, a total of 69 percent."[4] Combination effects are the norm not the exception, yet have not been considered in the pesticide regulatory system.

Findings from 2019 RUP Usage Data

2019 marked the first year RUP reporting data became publicly available. Analysis of this data has revealed that specific communities in Hawaiʻi are still heavily exposed to drift prone pesticides in close proximity to schools.[5] Specific communities in Hawaiʻi are facing large combinations of RUP usage, and likely chronic exposures from frequent applications.

The data suggests that additional public health and environmental protections are needed to protect our communities. Wide spread protections for communities and sensitive environments are needed, but buffer zones around schools and parks are common sense when addressing children's exposure to such toxic RUPs.

The first round of data in 2019 shows particularly concerning heavy use of fumigants, 1,3-Dichloropropene (1,3-D or trade name Telone) and Metam Sodium. Data suggests approximately 200,000 lbs of these active ingredients are being applied to north central Oʻahu, annually. These fumigants are known to be carcinogenic and highly prone to drift and cause

[2] American Academy of Pediatrics, Pesticide Exposure in Children, December 2012, vol. 130, issue 6.

[3] Ames, Richard G. "Pesticide Impacts on Communities and Schools." International Journal of Toxicology 21, no. 5 (October 2002): 397–402. doi:10.1080/10915810290096621.

[4] Donley, N. "Toxic Concoctions: How the EPA ignores the dangers of pesticide cocktails." Center for Biological Diversity, July 2016: 3-4.

[5] Jedra, Christina CivilBeat "The Scope Of Heavy Pesticide Use On Oahu Is Finally In The Public Domain" https://www.civilbeat.org/2023/02/the-scope-of-heavy-pesticide-use-on-oahu-is-finally-in-the-public-domain/

respiratory illness. In 2020, 1,3-D was found in the air at high levels that significantly increase cancer risk up to seven and a half miles away from the closest known application sites.[6] These fumigants are capable of increasing cancer risk for adjacent communities.[7] They are used as fumigants to sterilize the soil, killing beneficial organisms and the life of the soil.

100 foot buffer zones are simply not supported by scientific research, which widely demonstrates pesticides are known to drift over a mile and cause health impacts.[8]

Data obtained in 2019 was mapped (via TMK parcel) and the reporting data suggests that these buffer zones will only apply to a handful of rural communities, and schools / parks throughout Hawaiʻi. These areas are west side Kauaʻi (Kekaha to ʻEleʻele), Central Oʻahu, Central Mokokaʻi, Makawao and a handful of other schools upon very close inspection. These few areas are where kids are the most at risk in close proximity to RUP use and need buffers the most.

The 2019 data shows approximately 99% of all the RUP use reported in all of Hawaiʻi for agriculture, landscape, conservation etc was reportedly used by only 10 entities (5 of which grow food) and 97% of all the use reported in Hawaiʻi was only 5 entities. This data clearly shows that farmers are not widely using RUPs and therefore not many areas throughout Hawaiʻi would see buffers generated by this measure. This measure seeks to protect our most vulnerable children from exposure to known highly hazardous toxic pesticides.

Childhood Cancer Threat

Children who live in areas of high agricultural activity in the US from birth to age 15 experience a significantly increased risk of childhood cancers.[9] A 2007 meta-analysis of studies linking pesticide exposure concluded:

> A number of epidemiological studies consistently reported increased risks between pesticide exposures and childhood leukemia, brain cancer, neuroblastoma, non-Hodgkin's lymphoma, Wilms' tumor, and Ewing's sarcoma. An extensive review of these studies was published in 1998 (Zahm & Ward, 1998 Zahm, S. H. and Ward, M. H. 1998. Pesticides and childhood cancer. Environ. Health. Perspect, 106(suppl. 3): 893–908.). Fifteen case-control studies, 4 cohort studies, and 2 ecological studies have been published since this review, and 15 of these 21 studies reported statistically significant increased risks between either childhood pesticide exposure or parental

[6] Nathan Donley and Sarah Aird, October 2021, OP ED: California Needs to quit ignoring the public health and climate cost of pesticides
[7] Sharon Lerner, (2021) The Intercept: Environmental Group Charges EPA with Ignoring Evidence of Cancer
[8] EWG: Schools Near Pesticide Spray Zones Could Lose Health Protections, Nov 2 2022
[9] Carozza L et al. “Risk of Childhood Cancers Associated with Residence in Agriculturally Intensive Areas in the US.” Environmental Health Perspectives. Jan 2008; 116(4): 559-565.

occupational exposure and childhood cancer. Therefore, one can confidently state that there is at least some association between pesticide exposure and childhood cancer.[10]

Research continues to confirm the pesticide-cancer link with a 2016 Spanish population-based case-control study finding: "[O]ur result points to the same conclusion as many previous studies and suggests that living in the proximity of cultivated land could be associated with many types of cancer in children."[11]

Harm to Children's Brains

The most recent study of the UC Berkeley research team, CHAMACOS, indicates that combined organophosphate (OP) applications near pregnant women have a negative effect on the IQ of their children, where some individual OPs may not. Every 522 pounds of OPs applied within a 1 kilometer (0.62 mile) radius of a pregnant Salinas Valley woman's home correlated with a 2 point drop in her children's IQ compared to a control group.[12] Recent evidence also suggests that social adversity exacerbates the adverse effects of prenatal OP exposure on IQ.[13]

The science connecting pesticide exposure to neurological impairment is not limited to prenatal studies. Out of the womb, children with higher levels of OP pesticide breakdown products in their urine are more likely to have ADHD.[14] [15]

A study of pre- and postnatal pesticide exposure and neurodevelopmental impairment, concluded that "postnatal and, to a lesser extent, prenatal exposure to pesticides, are negatively associated with children's neuropsychological development, regardless of the way of measuring exposure." In the same study, greater urinary levels of OP breakdown products were associated with poorer performance on IQ and verbal comprehension tests. Increased agricultural acreage around the child's residence postnatally was used as a proxy for cumulative exposure to pesticides-- and was found to be associated with decreased IQ, processing speed, and verbal comprehension scores. [16]

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[10] Infante-Rivard C and Weichenthal S. "Pesticides and Childhood Cancer: An Update of Zahm and Ward's 1998 Review." Journal of Toxicology and Environmental Health, Part B Vol. 10 , Iss. 1-2,2007.

[11] Gómez Barroso et al. "Agricultural crop exposure and risk of childhood cancer: new findings from a case–control study in Spain." Int J Health Geogr (2016) 15:18.

[12] Gunier RB et al. "Prenatal Residential Proximity to Agricultural Pesticide Use and IQ in 7-Year-Old Children." *Environ Health Perspect* June 2016

[13] Stein LJ et al. "Early childhood adversity potentiates the adverse association between prenatal organophosphate pesticide exposure and child IQ: the CHAMACOS cohort." Accepted manuscript in Neurotoxicology (2016). doi: 10.1016/j.neuro.2016.07.010.

[14] Bouchard M et al. "ADHD and urinary metabolites of organophosphate pesticides." Pediatrics 2010 125(6): 1270-1277.

[15] Kuehn B. "Increased Risk of ADHD Associated with Early Exposure to Pesticides, PCBs." JAMA July 2010, 304(1):27-28.

[16] B. González-Alzaga et al. "Pre- and postnatal exposures to pesticides and neurodevelopmental effects in children living in agricultural communities from South-Eastern Spain." Environment International 85 (2015) 229–237

Epidemiological studies have mainly linked prenatal pesticide exposure to effects on children's neurodevelopment, but we also know that school-age children's brains are still developing. It should be noted that there is scant data on postnatal exposures of children to pesticides, due in part to research challenges that are separate from our concerns.

Harm to Children's Lungs

Exposure of children to OP pesticides can also exacerbate asthma symptoms. A UC Berkeley CHAMACOS Study found that higher levels of OP metabolites in urine were associated with respiratory symptoms and coughing at 5 and 7 years of age.[17]

A wealth of data shows that pesticides drift much further than ½ mile beyond their target application due to wide, dust migration and volatilization.

For example, one national report[18] on drift-related pesticide poisonings found that in eleven states, 85 percent of people impacted would have been protected by a one-mile buffer zone, and 76 percent of the cases occurred at distances more than one-quarter mile from the application site.

A UC Berkeley CHAMACOS study[19] documented chlorpyrifos, (now banned in Hawaii, California and New York) in homes up to 1.8 miles from treated fields. Another UC Davis MIND Institute[20] study documented significantly increased rates of autism in children of mothers who lived up to one mile from treated fields during pregnancy. The California Childhood Leukemia study[21] found elevated concentrations of several pesticides in dust of homes up to three-quarters of a mile from treated fields.

Importance of Consistent Units of Measurement

SB352 also importantly requires the Department of Agriculture to report out RUP usage in consistent units of measurement. The reporting for RUP (Restricted Use Pesticide) use data in Hawai'i, has only recently started to become available, as of 2019. Because of poor reporting, it has taken considerable effort to make sense of the data, do the calculations, and format them into consistent metrics.

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[17] Raanan R et al. "Early life Exposure to OP pesticides and pediatric respiratory symptoms in the CHAMACOS Cohort." Environmental Health Perspectives, 123:2 179-182. 2015.

[18] Soo-Jeong Lee et al. "Acute Pesticide Illnesses Associated with Off-Target Pesticide Drift from Agricultural Applications: 11 States, 1998–2006" Environmental Health Perspectives [2011]

[19] Harney et al. "Pesticides in Dust from Homes in an Agricultural Area" American Chemical Society, Oct 2006

[20] Shelton et al. "Neurodevelopmental Disorders and Prenatal Residential Proximity to Agricultural Pesticides: The CHARGE Study" Environmental Health Perspectives, Oct. 2014

[21] Gunier et al. "Determinants of Agricultural Pesticide Concentrations in Carpet Dust" Environmental Health Perspectives, July 2011

HAPA worked with our partners to convert the 2019 data into a consistent unit of measurement (pounds), as data is reported in gallons, pounds and ounces, to GIS map the amounts used per TMK, pounds per acre, frequency of application, and combinations of pesticides. Each RUP formulation requires a different calculation to convert usage data into a consistent unit of measurement. This is important to allow for an “apples to apples” comparison of RUP usage in each community and statewide. Having all of Hawaii‘s RUP usage data converted pounds also allows for comparison with other states lbs/acre rates. For example, by converting all the 2019 data into pounds we could compare Hawaii’s fumigant usage with California and other major agriculture producing states. Hawai‘i usage appears to be some of the highest in the nation.

California‘s Department of Pesticide Regulation currently converts all RUP usage data into pounds for public reporting purposes. We recommend a system similar to California. HAPA contractors have already generated the needed formulas for data conversion and would be happy to share our research efforts with the Department of Agriculture.

Conclusion

Despite an abundance of evidence documenting the migration of pesticides well beyond the ½ mile buffer zones proposed in SB352 we recognize that ½ mile still will provide a significant improvement on the current 100 feet.

The threats are real and well established and then most at risk are our children in a handful of specific communities throughout Hawai‘i. Please don't wait any longer to protect our children in schools from pesticide drift.

Please support SB352.

Thank you for your consideration.

Respectfully,

Anne Frederick
Executive Director

HFUU
Hawai'i Farmers Union United
Kaua'i · O'ahu · Moloka'i · Maui · Hawai'i

Aloha Chair Gabbard, Vice Chair Richards, and Members of the Senate Agriculture and Environment Committee,

The Hawaii Farmers Union is a 501(c)(5) agricultural advocacy nonprofit representing a network of over 2,500 family farmers and their supporters across the Hawaiian Islands. **HFUU supports SB352.**

SB352 takes important steps towards safeguarding the health of Hawaii's children, communities, and environment by standardizing the reporting and restricting the use of pesticides. Mandating that the Department of Agriculture use consistent units of measurement in summarizing the amounts of restricted-use pesticides will facilitate informed decision-making for residents, stakeholders, and policymakers, while also fostering trust in the regulatory processes that govern pesticide application.

Establishing a one-half mile buffer zone around schools and state and county public parks further underscores our commitment to creating safer spaces for our children and families. These buffer zones minimize the risk of pesticide exposure, especially for vulnerable populations such as children, who are more susceptible to health issues caused by these chemicals.

Mahalo for the opportunity to testify.

Kaipo Kekona, President HFUU/HFUF

Kaipo S.K. Kekona

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January 29, 2025

HEARING BEFORE THE
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

TESTIMONY ON SB 352
RELATING TO PESTICIDES

Conference Room 224 & Videoconference
1:00 PM

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

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

The Hawaiʻi Farm Bureau respectfully opposes SB 352, which would randomly increase the school buffer zone to prohibit certain pesticides to over twenty-five times further than what the law is now. It also extends the buffer zone to include areas within half a mile of state and county public parks, any time of day or night.

As active community members, our primary focus is on the safety and health of our families, our employees, and our communities as we produce the food and other products that residents and visitors need and enjoy. **We support evidence-based pesticide laws and regulations, along with appropriate enforcement and penalties for violations. This bill is not based on facts and should not be passed.**

Health Study does not indicate need for expanded buffer zones
A study of over 89,000 farmers who use pesticides, and their spouses is relevant to this discussion since the health of the pesticide users and spouses would likely indicate how pesticides may affect disease risk. The Agricultural Health Study (a collaborative effort of the National Cancer Institute, the National Institute of Environmental Health Sciences, the Environmental Protection Agency, and the National Institute for Occupational Safety and Health) is the largest, longest (over 25 years) and most referenced study of cancer and other health outcomes of farmers who use pesticides.

A key finding is that farmers have lower rates of disease compared to the rest of the population.

Why does this bill target agriculture?
SB 352 is especially troubling because it targets agriculture – making farmers look bad – while failing to consider some important facts.

- There have been no recent reported incidents of pesticide issues around schools that would justify expansion of the current restrictions.
- The bill focuses on farming operations' use of restricted use pesticides (RUPs) but ignores the evidence about pesticide-related incidents.

Here's what the data shows: of all documented pesticide-related incidents at schools in Hawaiʻi, ***none*** were caused by the farming operations targeted in this bill. Of all poisoning incidents involving children in Hawaiʻi, the vast majority happen inside a home, not because of a nearby farming operation. More than a dozen reports have studied pesticide residue in air and water samples across the islands. They show no indication that Hawaiʻi's farmers are posing any significant risk to the environment.

Who uses RUPs?
In fact, the combined use of RUPs by farms in Hawaiʻi is a fraction of that used by non-farmers. The large majority of restricted use pesticides sold in Hawaiʻi is used by public agencies and non-agricultural businesses to protect public health, and to protect private residences, commercial facilities and other property from termites. However, for some unexplained reason, the current restrictions and those of this bill target agriculture.

Existing Laws Already Address Drift:
Current regulations mandate that pesticide users prevent drift, with violations enforceable under State and federal law. The HDOA actively enforces these regulations and investigates any suspected drift violations.

- Drift prevention is already the applicator's responsibility, regardless of the distance or pesticide type.
- Federal and state regulations establish an Application Exclusion Zone (AEZ), which prohibits applicators from applying pesticides in areas where people are present. The AEZ distance depends on the application type and is set at either 25 or 100 feet. This ensures public safety without unnecessarily burdening agricultural operations.

Pesticides are necessary tools
In Hawaiʻi, a primary State goal is to become more self-sufficient, especially with regard to food production. However, this goal is proving difficult to achieve because of our year-long perfect climate for pests and disease, and the continuous influx of near impossible-to-control noxious and invasive species that make farming here a constant battle. Pesticides are among the necessary tools that farmers use to minimize damage and loss of their crops.

No justification for expanding the buffer zone
Expanding the buffer zone to one-half mile unfairly penalizes farmers, reduces usable agricultural land, and exacerbates food insecurity in Hawaiʻi. Any amendments to

pesticide regulations should prioritize practicality, fairness, and science-based decision-making while maintaining accountability and transparency.

We ask our leaders across the state to please set aside unjustified legislation that discourages farming, and instead, support laws and policies that will strengthen agriculture's foundation in Hawaiʻi.

Thank you for your continued support of our local farmers who look forward to providing more of Hawaiʻi's agricultural needs.

HAWAII PEST CONTROL ASSOCIATION

Century Square – 1188 Bishop St., Ste. 1003*Honolulu, HI 96813-3304
Telephone (808) 533-6404 • Fax (808) 533-2739

January 29, 2025

Testimony To: Senate Committee on Agriculture and Environment
Senator Mike Gabbard, Chair

Presented By: Tim Lyons, CAE
Executive Director

Subject: S.B. 352 – RELATING TO PESTICIDES.

Chair Gabbard and Members of the Committee:

I am Tim Lyons, Executive Director of the Hawaii Pest Control Association and we stand in opposition to this bill.

The current 100-foot buffer zone has created many issues as people need to have fumigation services provided for them, yet they live near a school or a park. In fact, in many cases that's why they purchased the property that they did. Although there is a current exemption for this, without it, all those homes near parks and schools would not be able to get their houses tented for termites. For those of us that have lived in Hawaii long enough, we know that would be disastrous.

Again, we don't believe we are the targets for this kind of legislation, nor should we be included and based on that we oppose the bill.

Thank you.

SB-352
Submitted on: 1/29/2025 12:14:00 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
J Ashman	Testifying for Hawaii Farm Bureau	Oppose	Remotely Via Zoom

Comments:

Please see Hawaii Farm Bureau testimony.

SB-352
Submitted on: 1/25/2025 12:56:51 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Susan B Roberts Emery	Testifying for Green Party of Hawai'i	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support HB352. I write today on behalf of the Green Party of Hawai'i. We know that these chemicals are epigenetic chromosome disruptors. They stay in our bodies and they are passed on to the next generation. Typically they will present in the third generation. We are seeing these results everywhere , such as, the increase in cancers, especially breast cancer, irritable bowel syndrome is on the rise, and male sexual organs are shrinking, look at the increase in popularity of the little blue pill. These are all due to the chemical industry merging with Big Ag in the 1970s.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100' buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

Perhaps Hawai'i will lead the way with a 2 mile buffer zone, or better yet ban these pesticides altogether.

The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

We are very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass HB352.

Mahalo nui,

Green Party of Hawai'i

Susan RobertEmery

Paauilo

HAWAII CROP IMPROVEMENT ASSOCIATION

SB352 – In Opposition
Relating to Pesticides
Senate Committee on Agriculture and Environment

Date: Wednesday, January 29, 2025
Time: 1 PM
Place: Conference Room 224

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

The Hawaii Crop Improvement Association (HCIA) appreciates the opportunity to provide testimony **in opposition to SB352**, which requires the Department of Agriculture to use consistent units of measurement in its summary to the public on the amounts of restricted use pesticides used and establishes a one-half mile buffer zone for pesticides around schools and state and county public parks.

HCIA's opposition is to the provisions of the bill related to the half mile buffer zone. The U.S. Environmental Protection Agency (EPA) already regulates the use of pesticides to protect the environment, applicators, and community. Based on scientific research and data, pesticide labels will require applicators to use buffers when necessary. The half mile buffer zone proposed in this bill is not based on science.

The negative impacts of a half mile buffer zone would be significant for local agriculture. It would reduce a farmer's ability to maximize their property to grow food. For smaller farms, this could represent a sizable portion of their land. Proposals like half mile buffer zones just create unnecessary additional hardship and disincentives to enter into or grow Hawaii's agriculture industry.

Act 45 already put into a law a 100-foot buffer and this is workable for farmers. We ask the committee to defer a bill that only makes conditions more difficult for our local agriculture producers, especially when scientific data does not support the proposal.

Mahalo for the opportunity to submit our testimony in opposition.

The Hawaii Crop Improvement Association is a Hawaii-based non-profit organization that promotes modern agriculture to help farmers and communities succeed. Through education, collaboration, and advocacy, we work to ensure a safe and sustainable food supply, support responsible farming practices, and build a healthy economy.

LAND USE RESEARCH
FOUNDATION OF HAWAII
1100 Alakea Street, Suite 408
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(808) 521-4717
www.lurf.org

January 28, 2025

Senator Mike Gabbard, Chair
Senator Herbert M. "Tim" Richards, III, Vice Chair
Senate Committee on Agriculture and Environment

Strong Opposition to SB 352 RELATING TO PESTICIDES (Requires the Department of Agriculture to use consistent units of measurement in its summary to the public on the amounts of restricted use pesticides used. Establishes a one-half mile buffer zone for pesticides around schools and state and county public parks.)

Wednesday, January 29, 2025, at 1:00 p.m.
State Capitol, Conference Room 224, & Videoconference.

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 housing, while safeguarding Hawaii's significant natural, cultural, and agricultural resources, and public health and safety.

LURF members have been strong supporters of agriculture, have led the Hawaii in agricultural lands and production over the past century, and over the past two decades have partnered with the Hawaii Farm Bureau Federation and its Neighbor Island chapters (Hawaii Farm Bureau) and the Department of Agriculture (DOA) to advocate for, and pass numerous laws that support agriculture, including the Right to Farm and Important Agricultural Lands laws. The Hawaii Farm Bureau and LURF have consistently supported initiatives, programs, funding, and incentives for diversified agriculture and a broad range of farming and ranching to sustain and improve Hawaii's agricultural industry and food security.

LURF appreciates that this bill may be well-intended, however, under the circumstances, we must respectfully state our **strong opposition to the current portion of SB 352** that proposes an unnecessary one-half mile buffer zone.

SB 352. This measure would require the DOA to use consistent units of measurement in its summary to the public on the amounts of restricted use pesticides used; and would establish a one-half mile buffer zone for pesticides around schools and state and county public parks.

LURF's Position. LURF **strongly opposes the current version of SB 352**, based upon, among other things:

- **The proposed on-half mile buffer zone is arbitrary, and not based on facts, or scientific research and data ("science").**

- Based on science, the U.S. Environmental Protection Agency (EPA) already regulates the use of pesticides to protect the environment, applicators, and community. We understand that t**he EPA does not require half-mile buffer zones.**

- Also, based on science, **pesticide manufacturers and labels already require applicators to use buffers when necessary.** We also understand that the proposed half-mile buffer zone is not required by any manufacturers or labels.

- **Act 45 (2018) already imposes 100-foot buffer zones around school properties.** We believe that the current buffer zone is working for the community and farmers.

- Prior DOA data confirmed that **68% of the actual sales of Restricted Use Pesticides (RUP) in Hawaii are to homeowners and other users** - NOT to commercial agricultural producers.

- **According to a prior DOA report, homeowners (not commercial agricultural production) are actually responsible for the majority of pesticide incidents and evacuations relating to Hawaii's schools, and that none were due to the actions of commercial agricultural operations.**

- This bill would have **the unintended negative consequences of severely limiting the property area for agricultural operations** by *bonafide* farmers, new farmers, small family farms and other groups engaged in agricultural production; and

- This measure is **counter-productive to the State's goals relating to agricultural sustainability,** including, but not limited to, promoting agricultural viability, diversified agriculture and the IAL law.

For the above reasons, LURF **opposes SB 352** and respectfully urges your favorable consideration in **deferring this measure and holding it in this Committee**.

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

SB-352
Submitted on: 1/28/2025 12:59:36 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Scott Dahlman	Testifying for CropLife America	Oppose	Written Testimony Only

Comments:

CropLife America (CLA) is the national association representing manufacturers, formulators, and distributors of pesticides products used in agriculture production. We support and promote scientific-based policy in the regulation of pesticide products at both the state and federal level and advocate in the best interests of farmers. We oppose SB 352.

CLA recommends that in lieu of this bill that the Senate support SB 1304 which would appropriate funding for the continued monitoring of pesticide drift by the State Department of Agriculture and which recognizes the responsible use of pesticides for agricultural food security. Mahalo for the opportunity to testify.

EST. 2001
BOWMAN
TERMITE & PEST MANAGEMENT, LLC

253 Waiehu Beach Rd
Wailuku, HI 96793
808.244.0296

Wakon J. Childers, M.Ed.
253 Waiehu Beach Rd.
Wailuku, HI 96793
1/27/2025

To: Hawaii State Legislature

Subject: Opposition to SB352

Dear Honorable Mr. Rhoads and Mr. Gabbard

I am writing to express my strong opposition to Senate Bill 352. While I understand the intent behind the bill, the increased workload it would impose on businesses, combined with the potential risks associated with geospatial data collection, outweigh the benefits.

Currently, businesses are already fulfilling annual reporting requirements for restricted use pesticide applications. These reports provide sufficient data for the state to monitor and regulate pesticide use effectively. Transitioning to quarterly reporting would significantly increase administrative demands on businesses, requiring additional time, resources, and personnel to comply. This added burden is unnecessary given that the information is already being provided.

Moreover, requiring geospatial data for pesticide applications raises concerns about the misuse of such information. Publicly accessible or improperly secured geospatial data could inadvertently create detailed customer lists, which other organizations or competitors might exploit to poach jobs. This poses a threat to the competitiveness and privacy of local businesses.

Additionally, if quarterly reporting is implemented, it would necessitate the hiring of more government employees to review and process the increased volume of reports. This added expense would ultimately fall on taxpayers, further straining public resources without clear justification or benefit.

I urge you to reconsider the provisions of SB352 and instead focus on optimizing the existing annual reporting system to ensure both environmental safety and the continued success of Hawaii's businesses.

Thank you for considering my perspective.

Respectfully,
Wakon J. Childers, M.Ed.
President, PCO 1251
Bowman Termite & Pest Management, LLC; PCO 830

SB-352
Submitted on: 1/27/2025 1:01:26 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Jonathan Osorio	Individual	Support	In Person

Comments:

Aloha Senator Gabbard, Senator Williams and members of the Committee

We are writing to ask this committe to support SB 352, an important legislative step forward to protecting our school children and our subsurface waters from dangerous concentrations of restricted use pesticides (RUPs) by both establishing an effective buffer arounds schools and parks where children gather, and also requiring more detailed and precise reporting of the distribution of RUPs.

We are residents of Wahiawā and we have come to learn that there are significantly large areas of this ʻāina that have the largest concentrations of RUPs of any other place in Hawaiʻi Pae ʻĀina. The general reporting required by Act 45 can not reassure residents of Wahiawā that combinations of restricted pesticides will not have effects on our water, our crops and on our bodies. Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100’ buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

To this point the state does not have a proactive monitering of companies and land owners that employ restrictive use pesticides and even the passing of SB 352, in terms of knowing what chemicals are being discharged on the ground and in the air, is really more of a passive response to decades of their use in our ahupuaʻa. The increased reliabiity of these reports and the enlarged buffer zones to protect schools and parks is the next step and the very least the state should be doing for residents and families in Central Oʻahu and I urge this committee to pass the bill onward.

Jonathan and Mary Osorio

Jamaica Heolimeleikalani Osorio

Malia Hulleman Osorio

11 Kalala St, Wahiawā

I am testifying in strong support of SB352.

I am Dr. Lee Evslin. I am a board-certified pediatrician and a fellow of the American Academy of Pediatrics, and I served for 14 months on the state-sponsored JFF, studying pesticides on Kauai. I have lived and worked on Kaua`i since 1979 and served as CEO of Kauai Medical Clinic and Wilcox Hospital.

In 2012, the American Academy of Pediatrics published a landmark policy statement that changed dramatically the way pediatricians view the dangers of pesticides. Prior to this publication, we were all trained to look for and treat acute poisoning, that is, the symptoms and ill-health stemming from a child who might have swallowed a pesticide or been inadvertently sprayed. In 2012, the American Academy convinced us that even low-level pesticide exposure over time is very dangerous. They began their landmark publication with the statement that:

"pesticides are inherently toxic chemicals designed to kill or harm living organisms, and there is <u>growing concern</u> about the adverse health consequences of <u>low-level exposures</u>." (underlining is mine)

<u>This potential for low-level chronic exposure was made very obvious when visiting Waimea Canyon Middle School as an investigator for the JFF.</u> A large bank of open windows ran parallel to a field that had been sprayed for years. They showed us videos of a large pesticide spraying boom truck moving along the fence line just 6o feet from the banks of open windows. Thankfully, by the time JFF members visited the school, the courts had prevailed in moving these fields away from the school because of teacher union activity. It is of note that air testing done at

the school several years after the fields moved some distance from the classrooms still showed pesticides in the air.

If one thinks of our Hawaii schools, the conditions at this school are probably similar to many schools in Hawaii, with large banks of open windows, gusty trades, potentially dry dusty conditions, and children and teachers mandated to be in these rooms for many hours, five days per week, it is unfortunately obvious that the potential for chronic exposure is great.

Recent studies that point to the dangers of drift include:

- A UC Berkeley study documented that mothers living within 0.6 miles of applications of certain pesticides while pregnant had children with lower IQs and verbal comprehension skills. (1)
- A UC Davis study documented significantly increased rates of autism in children of mothers who lived up to one mile from treated fields during pregnancy. (2)
- The California study found elevated concentrations of several pesticides in the dust of homes up to three-quarters of a mile from treated fields. (3)
- A recent study of pregnant women in Idaho showed that those who live within 1/3 of a mile from fields sprayed with Roundup-like herbicides had increased amounts in their blood during spraying episodes. This is very concerning as Roundup-like herbicides were not thought to travel much by drifting. (4)

Our children need to attend school, and they deserve to be studying far from toxic substances, and teachers, particularly pregnant teachers, deserve no less.

A very important initiative in our state is to increase local food production. Let's set the proper groundwork. The American Academy of Pediatrics calls for pediatricians to become involved in initiatives calling for buffer zones and disclosure of what is being sprayed where. These steps are necessary to keep our populations safe, and the time to start is now.

I am asking our legislatures to join the doctors. Please vote to pass this bill.

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SB-352
Submitted on: 1/26/2025 7:07:19 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Keolani Kahale	Individual	Support	Remotely Via Zoom

Comments:

We must support this bill and consider the health and wellness of our impacted communities!

SB-352
Submitted on: 1/28/2025 11:01:49 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Klayton Kubo	Individual	Support	Remotely Via Zoom

Comments:

Support

SB-352
Submitted on: 1/25/2025 12:59:15 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Janis Turner	Individual	Oppose	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support HB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawai‘i has revealed that many communities are still heavily exposed to drift prone pesticides. 100’ buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

California has enacted similar legislation requiring pesticide buffer zones around schools, the farmworkers and communities living near agricultural areas. The measure had originally advocated for 1 mile buffer zones due to the abundance of research documenting pesticide drift and related health impacts up to a mile or further from the fields where they were applied.

The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass HB352 and HB351.

Mahalo for your consideration!

Janis Turner

Diamond Head

Talia Smith

2535 Kipuka Street
Koloa, HI 96756

1/27/25

To: Hawaii State Legislature

senkouchi@capitol.hawaii.gov

Subject: Concerns Regarding SB352

Dear Senator Kouchi,

I am writing to express my concerns about the potential impacts of Senate Bill 352 on local businesses and taxpayers. While the intent of the bill is understandable, its implementation could create significant challenges that outweigh its potential benefits.

First, the current annual reporting system already provides comprehensive data on restricted use pesticide applications. Requiring quarterly reporting would place an unnecessary administrative burden on businesses, increasing their workload without providing additional value. Many small and medium-sized businesses simply do not have the resources to meet these new demands, and the resulting strain could disrupt operations.

Second, mandating geospatial data reporting poses a serious risk to the confidentiality of customer information. Such data could effectively generate detailed customer lists that competitors or other organizations could exploit to target and poach clients. This not only threatens the competitiveness of local businesses but also undermines their ability to protect sensitive client relationships.

Furthermore, the increased reporting frequency would require the state to allocate more resources to process the additional data. Hiring more government employees to manage this workload would result in higher costs to taxpayers, creating a financial burden without clear evidence of improved outcomes.

The current annual reporting system strikes a balance between transparency and practicality. Rather than imposing new requirements, I urge the Legislature to focus on enhancing the efficiency of the existing system to achieve the same goals.

Thank you for considering this perspective, and I hope you will consider the significant challenges this bill would create for businesses and taxpayers alike.

Sincerely,
Talia Smith

SB-352
Submitted on: 1/25/2025 11:44:54 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Valerie Weiss	Individual	Support	Written Testimony Only

Comments:

Let's get larger buffer zones in place to protect all living things from restricted pesticide drift.

SB-352
Submitted on: 1/25/2025 9:58:30 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Val Hertzog	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support HB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100' buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

California has enacted similar legislation requiring pesticide buffer zones around schools, the farmworkers and communities living near agricultural areas. The measure had originally advocated for 1 mile buffer zones due to the abundance of research documenting pesticide drift and related health impacts up to a mile or further from the fields where they were applied.

The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

As an educatior, I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

On January 30, 2024 HIDOT sprayed Finale 1.3 miles along the highway from Kanuikapono Public Charter School. Staff and keiki got sick from the pesticide drift. Then again on February 16, 2024 HIDOT sprayed .3 miles from our school and staff and keiki got sick again from the pesticide drift. Staff members could smell the pesticide at school. Staff members who live on the highway got sick and so did their family members.

Please protect our keiki and pass HB352.

Mahalo for your consideration!

Val Hertzog, Kapa'a

SB-352
Submitted on: 1/25/2025 3:43:53 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
JarraeTehani Manasas	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Richards and Members of the Committee

Please support SB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawai‘i has revealed that many communities are still heavily exposed to drift prone pesticides. 100‘ buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

The American Academy of Pediatrics (AAP) finds there to be significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them form unintended exposure.

As a parent of a young keiki, I am very concerned about long-term pesticide exposure for him and all of Hawai‘is keiki while they are at schoool or play in our parks which constitutes a health threat that can lead to cancer, neurological and respiratory damage, among other medical conditions.

Please protect our keiki and pass SB352

Mahalo for your consideration

JarraeTehani Manasas, Kailua Kona Hawai‘i

SB-352
Submitted on: 1/25/2025 2:33:24 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Troy Schacht	Individual	Support	Written Testimony Only

Comments:

Please support

SB-352
Submitted on: 1/26/2025 5:18:50 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Lela Kalama	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support HB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100’ buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

California has enacted similar legislation requiring pesticide buffer zones around schools, the farmworkers and communities living near agricultural areas. The measure had originally advocated for 1 mile buffer zones due to the abundance of research documenting pesticide drift and related health impacts up to a mile or further from the fields where they were applied.

The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass HB352.

Mahalo,

Lela Kalama, Kea'au, HI

Date: January 24, 2025

Subject: ½ Mile Pesticide Buffer Zones Are Needed Near Schools and Day Care Centers

From: J. Milton Clark, Ph.D.
Former Senior Health and Science Advisor
U.S. Environmental Protection Agency, Region 5, Chicago
Former Associate Professor of Environmental and
Occupational Health Sciences
University of Illinois School of Public Health
clarkenviro.com

The State of Hawaii, following the lead of California, must expand pesticide buffer zones from the current scientifically indefensible 100 feet. By way of background, I served as a pro bono expert to the Joint Fact Finding on Pesticide Use and GMOs in Kauai. While with U.S. EPA and the University of Illinois School of Public Health, I conducted and published over one hundred human health risk assessments dealing with exposure to pesticides and toxic chemicals. These risk assessments were the basis for cleaning up and decontaminating numerous sites which protected thousands of people (clarkenviro.com).

To prevent autism and other neurological impacts to children the use of restricted pesticides in Hawaii needs to be prohibited within ½ mile of schools and day care centers. *As documented below, leading academic institutions have published peer reviewed research, some funded by EPA, that clearly demonstrates that a ½ mile buffer zone is required to provide adequate health protection for children.*

Several studies have shown that proximity to agricultural fields at distances up to 0.9 mile results in maternal exposure to pesticides that is associated with neurological deficits in children, including autism, autism spectrum disorders, and cognitive impairments (1-6, 31-36). *The science is especially strong that children living within ½ mile of agricultural fields show neurological impacts*. A University of California Berkeley study, partially funded by U.S. EPA, demonstrated that proximity to agricultural fields was associated with a reduction in child IQ and verbal comprehension at distances up to 0.6 mile (31,32,34,36). This science is based upon a statistical relationship between the amounts of pesticides in maternal umbilical cord blood or urine and the severity of adverse neurological health effects in their children.

Hawaii has a very limited data base on pesticide health incidents as compared to California and other much larger states. In 2018, California passed regulations to restrict the application of *all* agriculturally applied pesticides within ¼ mile of schools and day care centers during the hours of 6 am to 6 pm and when schools are open. While an important step forward, California's regulation is not fully protective. California's decision was primarily based on pesticide incidences of

airborne drift causing *acute* health effects, not *chronic* health effects that have been clearly documented at distances greater than ¼ mile.

Agricultural Pesticide Drift Occurs at Distances of Nearly a Mile

While EPA defines spray drift as pesticides that are carried off target as mists, droplets or powders, it been well documented that pesticides in agricultural soils and dusts are transported from fields at distances greater than ¼ mile, including as documented (by photographs) in numerous homes in Waimea, Hawaii (7,8,9,34-37). Pesticides are also transported by their volatilization from soils. Homes within 0.8 mile of agricultural fields have higher concentrations of pesticides than homes at greater distances (34).

An analysis of several household pesticide dust studies revealed detectable residues of chlorpryifos and other pesticides at distances up to 0.7 mile from fields and a statistically significant increase in pesticide levels within homes based upon proximity to agricultural fields (35). As previously discussed, adverse health effects have been reported in children at distances up to 0.9 mile.

California's ¼ Mile Regulation

Lee et al., evaluated 2,945 acute cases of pesticide illnesses associated with 643 drift events in eleven states (37). California used the work of Lee to develop regulations for schools and day care centers (38). 1,565 (53%) of the acute cases were non-occupational and approximately 400 cases involved were children. Drift was defined as "pesticide exposures outside there intended area of application by: (1) spray, mist, fumes, or odor during application; (2) volatilization, odor from a previously treated field, or migration of contaminated dust; and (3) residue left by offsite movement. *Soil fumigation was responsible for the largest number of cases (738) with 606 (82%) occurring greater than 0.25 miles from the application site.* In 2012 EPA implemented new regulations for soil fumigants (size of field, distance, and 36 hour time for re-entry) that may reduce cases of acute exposure.

California's Department of Pesticide Regulation (DPR) considered (1) pesticide drift episodes causing *acute* cases near schools (2) greater neurological sensitivity of children to pesticides (3) pesticide air monitoring data to implement the ¼ mile pesticide application restriction (between the hours of 6 am and 6 pm or when schools are in session) (38). The basis for passing the regulations are as follows:

- From 2005-2014, California documented 34 cases of pesticide caused acute illnesses at schools related to five episodes of pesticide drift.

- DPR concluded that if the ¼ mile regulation had been in effect these 34 acute pesticide related illnesses at schools would not have occurred. However, this conclusion was not supported by the much larger data set of Lee from eleven

states that found that *the majority of acute poisoning cases (primarily fromsoil fumigation) occurred at distances greater than 1/4 mile.*

- DPR concluded that a margin of safety for school children was required to reduce the chances of unintended pesticide drift.

- DPR found that the costs of the ¼ mile regulation (with 3,500 schools possibly impacted) to each agricultural grower were low, ranging from $1,300-$3,500 per year. No significant impacts were found on jobs or small businesses.

A ¼ Mile Part Time Restriction Is Not Strong Enough

While an important step forward, the California ¼ mile regulation is not based upon known chronic pesticide health effects, such as autism and reduction in IQ, and therefore does not adequately protect the developing child, infants, and young children. The California regulation only applies part time (while teachers and children are at school) and does not fully address pesticide exposures caused by volatilization and the transport of pesticides from agricultural soils and dusts into residential properties. In homes, studies have shown that infants and children are exposed to pesticides in dusts and soils by hand to mouth contact.

To protect Hawaiian women and children, restricted use pesticides should not be applied within ½ mile of any occupied structures, including residential structures. The ½ mile buffer distance is based upon University of California Berkeley study, that strongly documented neurological health impacts in children living at distances up to 0.6 mile from agricultural fields and findings of agriculturally used pesticides in household dusts at similar distances (7-9, 31-36).

There has often been discussion of a 100 foot spay buffer for Hawaii schools and day care centers. *A 100 foot buffer zone is scientifically insupportable and grossly inadequate.*

In addition to buffer zones, Hawaii should adopt a strategy to regulate the types and amounts of restricted pesticides that can be used on agricultural and residential lands. Hawaii's, California's and New York's (and now U.S. EPA's) recent bans and phase-outs on chlorpryifos are excellent examples of appropriate regulatory action to protect the public from a neurologically damaging pesticide.

A Hawaii Pesticide Buffer Regulation is Needed

In conclusion, the Hawaii legislature needs to provide children and women teachers protection from potentially harmful exposure to restricted use pesticides by prohibiting the application of restricted use pesticides within ½ mile of schools and day care centers.

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17. Chlorpryifos: Evaluation of Potential Risks From Spray Drift and the Impact of Potential Risk Reduction Measures, EPA, July 13, 2012.
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SB-352
Submitted on: 1/26/2025 9:41:54 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Debra M Javar	Individual	Support	Written Testimony Only

Comments:

I fully SUPPORT SB352

SB-352
Submitted on: 1/25/2025 1:50:41 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Kealakai Hammond	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support HB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100’ buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

California has enacted similar legislation requiring pesticide buffer zones around schools, the farmworkers and communities living near agricultural areas. The measure had originally advocated for 1 mile buffer zones due to the abundance of research documenting pesticide drift and related health impacts up to a mile or further from the fields where they were applied.

The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass HB352.

Mahalo for your consideration!

Kealakai Hammond,

Honolulu, Hawaii

SB-352
Submitted on: 1/26/2025 6:21:32 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
B.A. McClintock	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support HB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100’ buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

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The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass HB352.

Mahalo for your consideration!

SB-352
Submitted on: 1/25/2025 9:12:25 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Stacey Alapai	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support SB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100' buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

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The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass SB352.

Mahalo for your consideration!

Stacey Alapai, Makawao, Maui

OFFICE OF THE COUNTY CLERK

Jade K. Fountain-Tanigawa, County Clerk
Lyndon M. Yoshioka, Deputy County Clerk

Telephone: (808) 241-4188
Facsimile: (808) 241-6349
Email: cokcouncil@kauai.gov

Council Services Division
4396 Rice Street, Suite 209
Līhuʻe, Kauaʻi, Hawaiʻi 96766

January 27, 2025

TESTIMONY OF FERN HOLLAND
COUNCILMEMBER, KAUAʻI COUNTY COUNCIL
ON
SB 351, RELATING TO PESTICIDES
AND
SB 352, RELATING TO PESTICIDES
Senate Committee on Agriculture and Environment
Wednesday, January 29, 2025
1:00 p.m.
Conference Room 224
Via Videoconference

Dear Chair Gabbard and Members of the Committee:

Thank you for this opportunity to provide testimony in SUPPORT of SB 351, Relating to Pesticides and SB 352, Relating to Pesticides. My testimony is submitted in my individual capacity as a member of the Kauaʻi County Council.

Regarding SB 351, for over a decade, I have advocated for improved reporting and data collection regarding pesticide use on Kauaʻi and throughout Hawaiʻi. In 2019, the passage of Act 45 required reporting for Restricted Use Pesticides (RUPs), marking an important first step. However, due to the current reporting requirements and processes, significant effort has been required to transcribe, standardize metrics, calculate, and analyze this data effectively. Accurate RUP data is essential for assessing human and environmental exposure and impacts. The collection and reporting of RUP application data need substantial reform to establish consistency, standardization, and usability for public and environmental health studies.

Years of working with RUP application data have underscored the critical need for improved reporting, particularly the inclusion of more precise location details. Geographic specificity is fundamental to conducting robust scientific assessments and epidemiological studies. Research proving the neurological harm of pesticides to fetuses and children relied on geographically detailed data, a factor currently lacking in Hawaiʻi's reporting system.

Enhanced reporting in Hawaiʻi would provide policymakers and public health experts with the data needed to make evidence-based decisions about pesticide use. The most critical components of this measure are the standardization of reporting units and the inclusion of geospatial information accurate to within one mile. These enhancements are crucial to ensuring that the data collected can be used effectively for scientific and policy purposes.

It remains imperative to gather detailed information about the time and location of RUP applications across Hawaiʻi and to establish stronger oversight

mechanisms to ensure compliance statewide. Pesticide exposure is well-documented to pose significant risks to public health, farm workers, pollinators, non-target crops, and the environment. RUPs, in particular, have a high potential for harm. I urge you to support robust data collection, scientific research, and detailed RUP reporting by advancing SB 351.

Regarding SB 352, I strongly support SB 352, which seeks to establish buffer zones around schools and parks to reduce children's exposure to RUPs. It is disheartening that 12 years after the Kaua'i County Council's efforts to create buffer zones—and after thousands of residents marched in support—we are still urging the State to take action to protect our children from the harmful effects of pesticide drift.

On the Mana Plain in west Kaua'i, there are an estimated 1,500 RUP applications annually, not including additional applications of General Use Pesticides. SB 352's proposed buffer zones would create a critical distance between areas frequented by children, such as schools and parks, and the spraying of highly toxic RUPs. This would significantly reduce potential exposure to pesticide drift.

The federal government has failed to protect communities and the environment from pesticide impacts due to weak precautionary policies, industry lobbying, and regulatory shortcomings. As a result, the State of Hawai'i must step up to fulfill this critical role. Since 2016, when "implied preemption" limited the counties' ability to address pesticide issues, it has become evident that this responsibility falls squarely on the State.

This measure is both basic and common sense: children deserve to be protected from exposure to highly toxic, carcinogenic, and mutagenic pesticides. The establishment of buffer zones would provide significant benefits, particularly for west Kaua'i communities, where children are at heightened risk of exposure due to their proximity to experimental genetically engineered field trials and heavy RUP use.

Please consider the following as you make your decision:

- Science is incessantly clear. Several epidemiological studies consistently reported increased risks between pesticide exposures and childhood leukemia, brain cancer, neuroblastoma, non-Hodgkin's lymphoma, Wilms' tumor, and Ewing's sarcoma. An extensive review of these studies was published in 1998.
- At least 15 case-control studies, 4 cohort studies, and 2 ecological studies have been published since this 1998 review, and 15 of these 21 studies reported statistically significant increased risks between either childhood pesticide exposure or parental occupational exposure and childhood cancer. Therefore, one can confidently state that there is at least some association between pesticide exposure and childhood cancer.
- Long-term chronic pesticide exposure while in school, can lead to cancer, neurological, and respiratory damage, among other medical conditions.
- California has already enacted similar legislation to protect farm workers and communities living near agricultural areas.
- The American Academy of Pediatrics (AAP) found there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

- Research is increasingly raising concerns about the combined effects of exposure to multiple pesticide "mixtures". Combination effects are very common but have not been considered in the pesticide regulatory system or thoroughly in scientific study.
- Prenatal studies involving exposure to Organophosphate Pesticides (OP) connect pesticide exposure to neurological impairment and reduced intelligence quotient. Out of the womb, children with higher levels of OP pesticide breakdown products in their urine are more likely to have attention-deficit/hyperactivity disorder (ADHD). Greater urinary levels of OP breakdown products were associated with poorer performance on IQ, tests, processing speed, and verbal comprehension scores. Exposure of children to OP pesticides can also harm the lungs and exacerbate asthma symptoms.
- A wealth of data shows that pesticides drift much further than ½ mile beyond their target application due to wide, dust migration and volatilization.
- A University of California, Berkeley study documented drift up to 1.8 miles from treated fields.
- A University of California Davis study documented significantly increased rates of autism in children of mothers who lived up to 1-mile from treated fields while pregnant.
- The California Childhood Leukemia study found elevated concentrations of several pesticides in dust of homes up to ¾ of a mile from treated fields.

The data indicates a clear need for enhanced public health and environmental protections to safeguard our communities. While comprehensive protections for communities and sensitive environments are essential, establishing buffer zones around schools and parks is a practical and common-sense measure to mitigate children's exposure to highly toxic RUPs. Buffer zones around schools and parks represent a critical first step in protecting Hawai'i's children from the dangers of pesticide drift. While a ½ mile buffer zone is a starting point, broader protections are necessary to address the full scope of public health and environmental risks.

I also recommend separating the need for improved data collection and reporting methodologies into its own measure (SB 351) and addressing buffer zones as a distinct issue under SB 352. This approach will allow for more focused and effective discussions on both topics, as protecting the health and safety of our keiki and communities must remain a top priority.

Thank you again for this opportunity to provide testimony in support of SB 351 and SB 352. Should you have any questions, please feel free to contact me or Council Services Staff at (808) 241-4188 or via email to cokcouncil@kauai.gov.

Sincerely,

FERN HOLLAND
Councilmember, Kaua'i County Council

AAO:dmc

SB-352
Submitted on: 1/26/2025 9:48:58 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Shay Chan Hodges	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support HB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100’ buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

California has enacted similar legislation requiring pesticide buffer zones around schools, the farmworkers and communities living near agricultural areas. The measure had originally advocated for 1 mile buffer zones due to the abundance of research documenting pesticide drift and related health impacts up to a mile or further from the fields where they were applied.

The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass HB352.

Mahalo for your consideration!

Shay Chan Hodges, Haiku, Maui

SB-352
Submitted on: 1/27/2025 9:22:00 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Melissa Barker	Individual	Support	Written Testimony Only

Comments:

Honorable Chair Gabbard, Vice Chair Richards and Members of the Committee,

I am writing to respectfully ask that you please support HB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100’ buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

The long-term pesticide exposure of keiki while they are at school or at play in our parks constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass HB352.

Thank you for your attention and consideration.

Melissa Barker

Kapaa, HI

SB-352
Submitted on: 1/26/2025 3:08:43 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Ann Dorsey	Individual	Support	Written Testimony Only

Comments:

I urge you to support HB352, which will establish meaningful buffer zones to ensure protections for communities, children, elderly and sensitive areas. Exposure to pesticides can cause cancer, neurological and respiratory damage, as well as other medical conditions. .

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100’ buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

California has enacted similar legislation requiring pesticide buffer zones around schools, the farmworkers and communities living near agricultural areas. The measure had originally advocated for 1 mile buffer zones due to the abundance of research documenting pesticide drift and related health impacts up to a mile or further from the fields where they were applied.

The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

Thank you

SB-352
Submitted on: 1/25/2025 10:45:48 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Kaiakahinalii Kaopua-Canonigo	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

I am testifying today in support of SB352, and asking this committee to support this measure as well.

An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100’ buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

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The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass SB352!

Mahalo nō,

Hina Kaʻōpua-Canonigo, Mānoa

SB-352
Submitted on: 1/25/2025 1:16:05 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Emelia Briscoe	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support HB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100’ buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

California has enacted similar legislation requiring pesticide buffer zones around schools, the farmworkers and communities living near agricultural areas. The measure had originally advocated for 1 mile buffer zones due to the abundance of research documenting pesticide drift and related health impacts up to a mile or further from the fields where they were applied.

The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass HB352.

Mahalo for your consideration!

Emelia Briscoe, Honolulu

SB-352
Submitted on: 1/26/2025 12:30:23 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Isis Usborne	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support SB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100' buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

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The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass SB352.

Mahalo for your consideration!

Isis Usborne
Kapahulu Ave resident (96815)
2026 JD Candidate at William S. Richardson School of Law

SB-352
Submitted on: 1/26/2025 2:00:08 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Paul Kimo Pestana	Individual	Support	Written Testimony Only

Comments:

Please support HB352.

An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Research has shown that certain pesticides are known to drift over a mile and cause health impacts.

Long-term pesticide exposure of keiki while they are at school or at play in our parks, constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

SB-352
Submitted on: 1/25/2025 2:55:07 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Georgia L Hoopes	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee, Representatives, and Senators

Please support HB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100’ buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

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The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass HB352.

Mahalo for your consideration!

Georgia Hoopes, Kalaheo

SB-352
Submitted on: 1/27/2025 1:33:42 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Juvana Soliven	Individual	Support	Written Testimony Only

Comments:

I support SB352

SB-352
Submitted on: 1/25/2025 2:18:42 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
emily gambino	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support HB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100’ buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

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The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass HB352.

Mahalo for your consideration!

Emily Gambino, Makawao

SB-352
Submitted on: 1/25/2025 1:17:51 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Noelle Lindenmann	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support HB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100' buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

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The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass HB352.

Mahalo for your consideration!

Noelle Lindenmann, Kailua-Kona

SB-352
Submitted on: 1/25/2025 11:40:31 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Jennifer Chiwa	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Senator Gabbard, Vice Chair Senator Richards and Members of the Committee on Agriculture and Environment,

Please support SB352 to establish Restricted Use Pesticide buffer zones and to improve Restricted Use Pesticide reporting.

Mahalo.

Jennifer Chiwa

Makiki

SB-352
Submitted on: 1/27/2025 12:18:27 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Chloe	Individual	Support	Written Testimony Only

Comments:

Revised quarterly reporting of pesticide use by commercial agricultural is a key stepping stone towards gathering the data that is needed to change policies around pesticides. Pesticides harm people everyday when they drift into school & residential zones, especially for children, elders and pregnant women. Expanded buffer zones are needed so that risk of health complications can be minimized. The Department of Agriculture needs to use consistent units of measurement for reporting RUPs so data can be more clear and specific buffer zones can be established that protect children from toxic drift.

I live in Waialua and my child is two years old. I care deeply for her health, her lungs and her future. Agricultural land surrounds Waialua High School and no pesticides should be used within two miles of a school.

SB-352
Submitted on: 1/26/2025 6:55:48 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Irena Bliss	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support HB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100' buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

California has enacted similar legislation requiring pesticide buffer zones around schools, the farmworkers and communities living near agricultural areas. The measure had originally advocated for 1 mile buffer zones due to the abundance of research documenting pesticide drift and related health impacts up to a mile or further from the fields where they were applied.

The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass HB352.
It is vital to continue to live the values of Aloha ʻĀina, Mālama ʻĀina and make decisions that support the well-being and thriving of the keiki, the elderly, and all future generations on island.

Mahalo piha for your consideration!
aloha,
Irena Bliss
Haʻikū, Maui 96708

SB-352
Submitted on: 1/27/2025 8:04:27 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Jodie	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support HB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100’ buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

California has enacted similar legislation requiring pesticide buffer zones around schools, the farmworkers and communities living near agricultural areas. The measure had originally advocated for 1 mile buffer zones due to the abundance of research documenting pesticide drift and related health impacts up to a mile or further from the fields where they were applied.

The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass HB352.

Mahalo for your consideration!
Jodie Thayer

Wainiha

SB-352
Submitted on: 1/27/2025 9:46:51 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Keila Paahana	Individual	Support	Written Testimony Only

Comments:

I support

SB-352
Submitted on: 1/26/2025 10:54:25 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
David Ball	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards, and Members of the Committee,

I encourage you to please pass SB 351. As an educator and a parent, the health of our keiki is foremost on my mind when working with tomorrow's leaders. The enhanced safety zone established by this bill will better ensure our children's health and well-being. Thank you for your time and consideration.

David Ball, Waialae-Kahala

SB-352
Submitted on: 1/27/2025 7:33:19 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Julia Marrack	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support HB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100’ buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

California has enacted similar legislation requiring pesticide buffer zones around schools, the farmworkers and communities living near agricultural areas. The measure had originally advocated for 1 mile buffer zones due to the abundance of research documenting pesticide drift and related health impacts up to a mile or further from the fields where they were applied.

The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions. I grew up in the farm lots where I was continually exposed to pesticides on windy days, and was diagnosed with breast cancer. I have no history of it in my family, and I believe it's from repeated exposure to pesticides.

Please protect our keiki and pass HB352.

Mahalo for your consideration!

Julia Marrack, Kamuela

SB-352
Submitted on: 1/25/2025 12:21:10 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Walter Ritte	Individual	Support	Written Testimony Only

Comments:

Aloha,

My name is Walter Ritte, and I live on the island of Molokai. Bayor has taken over the GMO farming on Molokai from Monsanto. We have not had a community meeting with Bayor since they have started farming on Molokai several years ago. They have fields accross the street of our elementary Kualapu'u School and our only High School is right accross the gultch of their fields. This bill will have a huge possitive impact on our fears of pesticide drift on our children and grand children. There is no reason to threaten our childrens health to grow crops that we can not eat and is emune to dangerous pesticides. Pleae help us protect our children from these giant corporations now on our farm lands.

SB-352
Submitted on: 1/27/2025 6:30:00 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Sherry Pollack	Individual	Support	Written Testimony Only

Comments:

I stand in strong support of SB352 that requires the Department of Agriculture to use consistent units of measurement in its summary to the public on the amounts of restricted use pesticides used, and to establishes a one-half mile buffer zone for pesticides around schools and state and county public parks.

This bill is a no-brainer. 100-foot buffer zones are insufficient to protect our keiki, elderly, and communities. Scientific research shows pesticides can drift over a mile and cause serious health issues. The American Academy of Pediatrics warns that children are especially vulnerable to pesticide exposure, which can lead to cancer, neurological damage, and respiratory issues.

Please protect our communities and pass this important measure.

Thank you for the opportunity to testify.

SB-352
Submitted on: 1/28/2025 11:26:53 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Leo Nahe Smith	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support SB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100' buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

California has enacted similar legislation requiring pesticide buffer zones around schools, the farmworkers and communities living near agricultural areas. The measure had originally advocated for 1 mile buffer zones due to the abundance of research documenting pesticide drift and related health impacts up to a mile or further from the fields where they were applied.

The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Please protect our keiki and pass SB352.

Mahalo for your consideration!

Na,

Leo Nahe Smith, Pearl City, HI

SB-352
Submitted on: 1/28/2025 1:34:07 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Dan Gardner	Individual	Support	Written Testimony Only

Comments:

Chair Gabbard and members of the Agriculture and Environment Committee. My wife and I both support SB352 legislation to increase the existing buffer zone for pesticides around for schools, State Parks, and County Parks to one half mile. It also standardizes units of measurement in RUP reporting summaries to enhance public clarity. With the normal winds in Hawaii a 100 foot buffer zone is a woefully narrow margin and it must be enlarged for the safety of us all. We thank you for you very important support to improve the existing status.

SB-352
Submitted on: 1/28/2025 11:08:07 PM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Rosana Weldon	Individual	Support	Written Testimony Only

Comments:

Testimony in support of SB352

My name is Rosana Weldon and I am writing in support of SB352 to improve Restricted Use Pesticide (RUP) reporting by requiring: 1) use of consistent units of measurements in its summary to the public, and 2) to increase buffer zones such that RUPs may not be used within one-half mile from schools and public parks.

I am an Environmental Health Scientist and I currently hold the position of Associate Specialist Research Faculty at the University of Hawaii (UH) at Manoa in the Office of Public Health Studies. Prior to my employment at UH, I worked with researchers at the University of California (UC), Berkeley on a longitudinal birth cohort study of women exposed to pesticides in the Salinas Valley of California called the CHAMACOS (Center for the Health Assessment of Mothers and Children of Salinas) Study. This study has now followed mothers and children for approximately 20 years. The studies of this cohort and others have concluded that pesticide exposure is associated with adverse health outcomes for children including poorer neurodevelopment. For the past 30 years California has had extremely comprehensive and detailed pesticide use reporting (PUR) requirements that include the date and time of application, geographic location, field location, commodity/crop/site treated, acres or units treated, EPA pesticide registration number of the product applied, and the amount of product applied. In 2003 California launched the web-based California Pesticide Information Portal (CalPIP) database which made access to the pesticide use data easier for the public and researchers to utilize. This database contains pesticide use location information to a 1 square-mile area.

California's PUR data have been used as an exposure assessment tool to estimate human health effects of pesticides for decades and have helped support legislation that limits or bans some pesticide use. These PUR data have been validated by two exposure assessment studies that show high correlations between nearby ambient air concentrations and location of pesticide use as reported in the database. (Harnly et al, 2005 & Wofford et al, 2014)

The California PUR data have been instrumental to the CHAMACOS study and other studies in California. In combination with data on residential proximity to fields, used as a proxy for pesticide exposure, several associations between pesticides and health effects have been determined. A brief summary of the findings of a sample of the literature, as reported by the original authors, as well as the citations are below:

- Gunier, Robert B., et al. "Prenatal residential proximity to agricultural pesticide use and IQ in 7-year-old children." Environmental health perspectives 125.5 (2017): 057002.
    - This study identified potential relationships between maternal residential proximity to agricultural use of neurotoxic pesticides (organophosphates, pyrethroids, neonicotinoids, and manganese fungicides) and poorer neurodevelopment in children. https://doi.org/10.1289/EHP504
- Rull, Rudolph P., et al. "Residential proximity to agricultural pesticide applications and childhood acute lymphoblastic leukemia." Environmental research 109.7 (2009): 891-899.
    - Specific pesticides may play a role in the etiology of childhood leukemia.
- Rowe, Christopher, et al. "Residential proximity to organophosphate and carbamate pesticide use during pregnancy, poverty during childhood, and cognitive functioning in 10-year-old children." *Environmental research* 150 (2016): 128-137.
    - Residential proximity to OP and carbamate pesticide use during pregnancy and both household- and neighborhood-level poverty during childhood were independently associated with poorer cognitive functioning in children at 10 years of age.
- Sagiv, Sharon K., et al. "Prenatal exposure to organophosphate pesticides and functional neuroimaging in adolescents living in proximity to pesticide application." Proceedings of the National Academy of Sciences 116.37 (2019): 18347-18356.
    - This first functional neuroimaging study of prenatal OP exposure suggests that pesticides may impact cortical brain activation, which could underlie previously reported OP-related associations with cognitive and behavioral function.
- Gemmill, Alison, et al. "Residential proximity to methyl bromide use and birth outcomes in an agricultural population in California." Environmental health perspectives 121.6 (2013): 737-743.
    - Residential proximity to methyl bromide use during the second trimester was associated with markers of restricted fetal growth in our study.

Thus, there is a large body of epidemiological evidence that proximity to fields is associated with adverse health effects in children. Children are a vulnerable population and are particularly susceptible to health effects of chemical exposures for several reasons: 1) they eat, drink and breathe more per unit of body weight than adults; 2) their systems are developing; 3) they may not have as much ability to detoxify chemicals as adults; 4) they have behaviors such as crawling and putting objects in their mouths that increase potential exposures. Thus, children need to be protected from hazards. Buffer zones are one tool that can be used to help protect our children. In addition, the public should be able to assess their risk from pesticide exposure by having reports that are intelligible and reported consistently.

In conclusion, I fully support SB352 because our children need to be protected from exposure to the most toxic of the pesticides that are available, RUPs. Not allowing RUP use within one-half mile of the locations where children are likely to be present is one tool to protect child health.

Sincerely,

Rosana Weldon, Ph.D., M.P.H.

SB-352
Submitted on: 1/29/2025 7:48:38 AM
Testimony for AEN on 1/29/2025 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
James Long	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Richards and Members of the Committee,

Please support HB352. An abundance of scientific literature on pesticide drift and the unique susceptibility of children to pesticide exposure provide a sound argument for establishing meaningful buffer zones to ensure even protections for communities, children, elderly and sensitive areas.

Analysis of restricted use pesticide (RUP) usage data in Hawaii has revealed that many communities are still heavily exposed to drift prone pesticides. 100' buffer zones are simply not supported by scientific research. Research has shown that certain pesticides are known to drift over a mile and cause health impacts. Keiki are particularly vulnerable to pesticide exposure and we must prioritize their health.

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The American Academy of Pediatrics (AAP) finds there to be a significantly increased health risk for children exposed to pesticides, and additional precautions must be taken to protect them from unintended exposure.

I am very concerned about long-term pesticide exposure of keiki while they are at school or at play in our parks, which constitutes a health threat that can lead to cancer, neurological, and respiratory damage, among other medical conditions.

Again, protecting our island keiki and residents should be a primary concern and an imperative.

Please protect our keiki and pass HB352.

Mahalo for your consideration!

James Long

Naalehu, HI