DAVID Y. IGE
Governor

JOSH GREEN
Lt. Governor

PHYLLIS SHIMABUKURO-GEISER
Chairperson, Board of Agriculture

MORRIS M. ATTA
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December 26, 2019

The Honorable Ronald D. Kouchi,
President and Member of the Senate
Thirtieth State Legislature
State Capitol, Room 409
Honolulu, HI 96813

The Honorable Scott K. Saiki,
Speaker and Member of the House of
Representatives
Thirtieth State Legislature
State Capitol, Room 431
Honolulu, HI 96813

Dear President Kouchi, Speaker Saiki, and Members of the Legislature:

For your information and consideration, I am transmitting a copy of the Report on a Pesticide Drift Monitoring Program to Evaluate Drift at Three Schools within the State as required by Act 45, SLH 2018. In accordance with Section 93-16, Hawaii Revised Statutes, I am also informing you that the report may be viewed electronically at http://hdoa.hawaii.gov/.

Sincerely,

Phyllis Shimabukuro-Geiser

Phyllis Shimabukuro-Geiser, Chairperson
Board of Agriculture

Enclosures

Island Fresh

REPORT TO THE THIRTIETH LEGISLATURE
2020 REGULAR SESSION
STATE OF HAWAII

REPORT ON A PESTICIDE DRIFT MONITORING PROGRAM TO EVALUATE DRIFT AT THREE SCHOOLS WITHIN THE STATE

ACT 45, SLH 2018

PREPARED BY:

THE STATE OF HAWAII
DEPARTMENT OF AGRICULTURE

DECEMBER 2019

Report on the Pesticide Drift Monitoring Study

In the 2018 Legislature Senate Bill 3095 SD 1 HD 1 CD 1 was passed and became known as Act 45. Act 45 contained several new legal requirements associated with the use of pesticides in the State of Hawaii. One of those requirements, Section 4 of SB 3095, stated: "*No later than July 1, 2019, the department of agriculture shall develop a pesticide drift monitoring study to evaluate pesticide drift at three schools within the State*." The Department of Agriculture (DOA) began exploring the options at the time the Bill was passed by the Legislature. When investigating those options, it became apparent that the study could cost the State of Hawaii as much as $1 million, or more, to fully execute.

Between November 2006 and April 2008 there were several odor incidents that occurred at the Waimea Canyon Middle School on Kauai. Some teachers and students thought it might be the smell of pesticides being sprayed on fields adjacent to the schools. As a result of those incidents, and responding to community concerns, the Department of Agriculture contracted Dr. Qing Li at the University of Hawaii (UH), College of Tropical Agriculture and Human Resources, Department of Molecular Biosciences and BioEngineering, to conduct a study on pesticide drift occurring at the school. The scientific article written to describe the study is attached to this report. This research looked for the presence of 24 different pesticides commonly used within the agricultural industry on the island of Kauai. As a result of the study there were traces of legacy pesticides such as DDT and lindane (formerly used for termite treatment), that were detected within the air sampling, along with traces of chlorpyrifos (an agricultural use insecticide), bifenthrin (a home and agricultural use insecticide), and metolachlor (an agricultural use herbicide) found in the air sampling over the course of one year of monitoring.

Dr. Li was contacted to determine if he had an interest in conducting the pesticide drift monitoring study that the Legislature intended in Act 45. Dr. Li provided the Pesticides Branch with a budget of $950,000 for a 2-year project. The main reason for the expense of the study is because of the number of sites that would be required in order to conduct a study that could be replicated. This means that there would be a need to provide for control sites associated with each identified school study site. Those control sites would be located in an area where it was known that pesticides were being applied and also control sites that were free of any pesticide spraying in neighboring areas. In other words, positive and negative controls. This means that there would be up to 3 sites on each island where monitoring for pesticide drift would need to be conducted in order to confidently interpret the results of the study.

In the spring of 2019, the Pesticides Branch was budgeted $300,000 that the legislature had provided for the pesticide drift monitoring study. However, because of the size of the project other options were considered before entering into a full blown pesticide drift monitoring study across 3 sites on 3 islands (total of 9 sites). The Branch was concerned that simply providing the funding for the study, without fully determining the proper location to conduct the tests, along with the ideal candidate schools for such an endeavor, would not produce reliable nor replicable results. Because of that, the Branch decided to pull back from providing full funding for the

research and instead is focusing on organizing a planning effort. This effort will consider stakeholder input, meet with community representatives in candidate areas to establish the groundwork for the study, inventory machinery and equipment needed to conduct the study, solicit for personnel to man the effort, and decide upon an experimental design that best would capture critical data that would provide meaningful results. For this effort Dr. Li provided a budget and a plan to execute a planning effort to ensure that all of the critical pieces of information associated with conducting a drift monitoring study were in place.

In August of 2019 the amended Pesticide Rules were passed which allows the Pesticides Branch to increase licensing fees from $330 per product to $930 per product. There are currently approximately 9,300 pesticide products that are licensed for use in the State of Hawaii. The licensing fees are for 3 years. One-third of all pesticides licensed in the State of Hawaii are renewed every year. At a rate of $330 per product the annual revenue to the Pesticide Use Revolving Fund has been $1,023,000. With the increase in the licensing fee we are projecting an annual revenue to the Pesticide Use Revolving Fund of $2,883,000 starting in FY 20. A portion of these revenues will be used to fund the Pesticide Drift Monitoring study. Upon completion of the planning effort, a recommendation will be made on whether to conduct and fund the study one island at a time or whether to fund the work for all three islands at the same time. Funds from the Pesticide Use Revolving Fund will be used to finance the approach that is recommended by the planning effort.