

**UNIVERSITY OF HAWAI'I SYSTEM** 

Legislative Testimony

Testimony Presented Before the Senate Committee on Ways and Means Thursday, February 20, 2020 at 10:35 a.m. By Nicholas Comerford, Dean College of Tropical Agriculture and Human Resources And Michael Bruno, PhD Provost University of Hawai'i at Mānoa

SB 2082 SD1 – RELATING TO INVASIVE PLANT SPECIES CONTROL

Chair Dela Cruz, Vice Chair Keith-Agaran, and members of Senate Committee on Ways and Means:

Thank you for the opportunity to submit testimony in <u>support</u> of SB 2082 SD1. The bill competently outlines the challenges that Hawai'i faces bringing in invasive species as ornamentals. The purpose of this bill is to fund development of infertile ornamental plants, in order to support the ornamental industry with new materials, while protecting the environment from invasive species.

Seedless or infertile plants can be developed from fertile plants by (1) selecting or breeding for double flowers, (2) induced mutagenesis, (3) wide hybridization, and (4) development of triploids. The newest potential for creating sterile plants comes from transgenic modification techniques.

The College of Tropical Agriculture and Human Resources (CTAHR), University of Hawai'i at Mānoa has produced such plants in the past and is active in doing so today. CTAHR's expert is Dr. Kenneth Leonhardt who is active in developing new sterile polyploids (more than one set of chromosomes), which are often sterile/infertile. The major technical bottleneck in identifying which offshoots are infertile is that it requires screening of many individuals, which requires technical staff.

If the desire of the legislature is to have sterile/infertile ornamental plants, then one strategy that would have an immediate impact is to fund the propagation and introduction of the species that Dr. Leonhardt has already converted to sterile forms. Due to lack of funds, he has not been able to take them to the introduction phase. Dr. Leonhardt's confirmed sterile plants and unconfirmed ones may be found in the listing at the end of this testimony.

A budget for one year to work on the introduction and to conduct evaluation work on the potential species is estimated to be \$97,000, which includes labor and supplies.

Thank you for the opportunity to testify in <u>support</u> of the bill. We support this bill provided that its passage does not replace or adversely impact priorities as indicated in our BOR Approved Budget.

<u>Scientific Name</u>	<u>Common Name</u>	Sterile Clones
Albizia saman	monkey pod tree (4N)	2
Cassia bakeriana	pink shower tree	4
Cassia fistula	yellow shower tree	4
Cassia javanica	pink and white shower tree	6
Cassia hybrids	no common name	20 to 30
Delonix regia	royal poinciana	1
Lagerstroemia hybrid	crape myrtle	3
Schefflera actinophylla	octopus tree	4
Spathodea campanulata	African tulip tree, orange	1
	African tulip tree, yellow	a few
Sterility Unconfirmed	Common Name	Polyploid individuals
<u>Sterility Unconfirmed</u> Albizia saman	<u>Common Name</u> monkey pod tree (3N)	Polyploid individuals 11
Albizia saman	monkey pod tree (3N)	11
Albizia saman Bauhinia monandra	monkey pod tree (3N) pink orchid tree	11
Albizia saman Bauhinia monandra Bauhinia variegata alba	monkey pod tree (3N) pink orchid tree white orchid tree	11 5 1
Albizia saman Bauhinia monandra Bauhinia variegata alba Calophyllum inophyllum	monkey pod tree (3N) pink orchid tree white orchid tree kamani	11 5 1 2 6 2
Albizia saman Bauhinia monandra Bauhinia variegata alba Calophyllum inophyllum Cenna leptophylla Clusia rosea Erythrina crista-galli	monkey pod tree (3N) pink orchid tree white orchid tree kamani no common name	11 5 1 2 6 2 6
Albizia saman Bauhinia monandra Bauhinia variegata alba Calophyllum inophyllum Cenna leptophylla Clusia rosea	monkey pod tree (3N) pink orchid tree white orchid tree kamani no common name autograph tree	11 5 1 2 6 2 6 6 6
Albizia saman Bauhinia monandra Bauhinia variegata alba Calophyllum inophyllum Cenna leptophylla Clusia rosea Erythrina crista-galli	monkey pod tree (3N) pink orchid tree white orchid tree kamani no common name autograph tree coral tree	11 5 1 2 6 2 6