

From: mailinglist@capitol.hawaii.gov
To: [WTLTestimony](#)
Cc: ewabond@gmail.com
Subject: Submitted testimony for SR36 on Mar 23, 2015 15:00PM
Date: Monday, March 23, 2015 10:36:04 AM

SR36

Submitted on: 3/23/2015

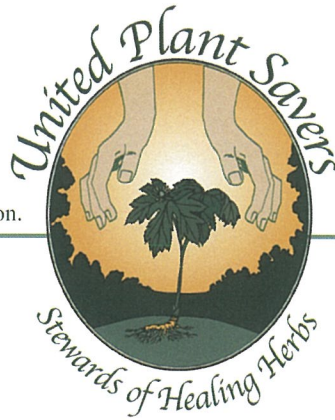
Testimony for WTL on Mar 23, 2015 15:00PM in Conference Room 224

Submitted By	Organization	Testifier Position	Present at Hearing
John Bond	Kanehili Cultural Hui	Support	No

Comments: John Bond and Kanehili Cultural Hui supports propagation of the native Sandalwood on Diamond Head and also their protection and preservation in every way possible as one of Hawaii Nei's most important historic and cultural living assets.

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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A registered 501 (c) 3 non-profit education corporation.

www.unitedplantsavers.org
office@unitedplantsavers.org

Dedicated to the conservation of native medicinal plants.

P.O. Box 776, Athens, OH 45701
Main Office: (740) 742 - 3455

March 21, 2015
State of Hawaii Legislature
Letter of Support for HR55, SR 36, HCR 139

To Whom It May Concern,

United Plant Savers highly supports a resolution that would work towards conservation efforts to protect endemic sandalwood, and is deeply alarmed that Hawaii is the only place in the world where sandalwood is not protected by some form of legislation action. UpS co-organized the International Sandalwood Symposium in 2012 and is curious why DLNR has not moved forward on any study to look at the need for conservation legislation as mandated by the state legislature. UpS commissioned its own study of the population of *S. Paniculatum*, and its alarming the very few populations that are present, and that those populations currently being completely logged at this time.

United Plant Savers has placed Hawaiian Sandalwood on its At-Risk List of native medicinal plants. Our at-risk list is based on looking at the various issues: 1) its vulnerability of its life history/morphology, 2) effects of harvest on individual plants and populations, 3) its abundance and range, 4) the status of its habitat, and 5) its market demand, that concerns needed to be addressed. When you consider all 5 aspects, sandalwood is extremely vulnerable to overharvesting and risk of extinction due to several facts including that its an endemic island species and that it takes more than 40 years to mature, harvesting involves taking the entire tree/roots, since the heartwood and roots have the highest percentage of oil. Furthermore the sandalwood tree is a hemi-parasite species meaning that it needs to grow along with certain host plants making it a very tricky tree to reforest successfully. Sandalwood's extraordinary fragrances, sacred religious significance to many cultures, its versatility, and medicinal properties have put it in high demand for centuries, all over the world. This is why Hawaii's native sandalwood population was heavily harvested during the infamous sandalwood trade that took place most intensively during 1815-1825. **Despite the historical sandalwood trade, Hawaii still remains the only region in the world where sandalwood is being commercially harvested with out regulation.** Native Hawaiian Sandalwood represents a quarter of the diversity of *Santalum*. Six separate species are found through out the islands, and within these species are several unique varieties, all endemic to the Hawaiian Islands. Therefore, considering all the above mentioned details in regards to sandalwood the governing board of directors unanimously voted to add all six native and endemic species *S. freycinetianum*, (endangered) *S. haleakalea*, *S. Paniculatum*, *S. ellipticum*, *S. involutum*, *S. pyrularium* to the at-risk list in 2013, in an effort to bring about stewardship of these living Hawaiian heirlooms.

Susan Leopold, PhD

Executive Director, United Plant Savers
Phone 703 667 0208
susan@unitedplantsavers.org

From: mailinglist@capitol.hawaii.gov
To: [WTLTestimony](#)
Cc: 1sandalwoodman@gmail.com
Subject: Submitted testimony for SR36 on Mar 23, 2015 15:00PM
Date: Monday, March 23, 2015 10:14:58 AM

SR36

Submitted on: 3/23/2015

Testimony for WTL on Mar 23, 2015 15:00PM in Conference Room 224

Submitted By	Organization	Testifier Position	Present at Hearing
Mark Robert Hanson	Hawaiian Reforestation Program	Comments Only	No

Comments: Mark R. Hanson, President Hawaiian Reforestation Program is Not waiting. We collect 1/4 million seed last year. Planted 50,000 seeds on Manua Kea and 2000 seedlings and still planting every week. This Resolution is your chance to be part of the History of the regrowing of Hawaii's Sandalwood Nut Forest's. Hawaii's Sandalwood Nut Trees Imagine you are one of the members of the first Polynesian crew that arrive here on a canoe. You are told to go collect the fruit of the land. You bring back a basket filled with what you have found. The elder of your canoe spreads your collection on his cloth and examines it. Then he takes a small rat out of a cage and places it among the fruit. She sniffs around going from fruit to fruit. She picks up this dark purple fruit and peels off the skin and thin shell and devours the white meat. She gathers and eats them all leaving a small pile of shells. Your elder has peeled one and places it in his mouth and slowly chews it. He smiles and says to the crew l'liahi (the tree of life). Its 1996 at the Hana Taro Festival on Maui. Two Hawaiian sisters reminisce about their childhood. Do you remember going to the forest with grandfather and he showed us this tree, and told us that if we are ever lost in the forest we could eat the seeds. Look Sister that's them! That's the fruit grandfather said we could eat! She looks at me, and asks what is that? Pointing at the bowl full of dark purple Sandalwood seeds. I pick one up and start peeling it, and reply, its Sandalwood nuts, would you like to try one? As I held out my hand with a peeled nut. Its 2007 I'm teaching students from Kamehameha Schools how to collect Sandalwood seed for a project on Hawaiian Home Lands. I explain to the students to try and pick the ripe seeds. If some green ones fall off too, it's ok to peel and eat them. One young man goes over to the tree and tries a seed. The class spreads out to look for more trees with seeds on them. I circle around pointing out a tree here and there. As I come back to the first tree, there's the same young man still eating sandalwood nuts. So I ask him are you hungry? He replies, "No but I can't stop eating them!" "Well try to get some ripe ones in your bag." I leave him to his munching. It was in 1980 when a friend and plant mentor took me on a hike with the Sierra club to Maui's Polipoli State Park. We walked thru the Redwood forest planted there. After we then drove up to what was called the Ball park because the CCC used to play baseball there on lunch break. My friend showed me a Sandalwood tree and told me the sad story of the Sandalwood harvest of old. As we drove away all the

hair on my body stood up, Chicken skin all over and a voice in my head whispered “Some day you will re-grow the Sandalwood Forest” It’s 1986 I’m walking in the forest in upper Nihiku Maui with a Kahuna. He turns to me and in a voice of power he says, “Mark you must re-grow the Sandalwood ,Koa , Ohia forests of Hawaii for the Hawaii Nation ever to be Pono (balanced) again.” In 1992 a Musician for the Earth shares her vision of a whale coming out of the ocean to tell her that the Sandalwood forest must be grown if our world is to ever live in balance. A German couple takes the vision to heart. They ask me how to make a nursery to grow Sandalwood trees, and how to encourage children to help return Sandalwood back on the mountain. I called the State forestry department and asked “are any sandalwoods left?” The state forester told me that there are some trees scattered across the slopes of Haleakala. I then asked “Can I pick seed to start program to plant trees with children?” He tells me, yes I can try. But they are very hard to grow, and the easiest place to find seeds is in an enclosure in Polipoli State Park and at a place called the Ball park on Skyline drive. On 12 of April 1992 my son and I drove up to Polipoli Park in a rickety 1974 Toyota land cruiser. We found the enclosure along the road. Among the 5 trees there, we found only two seeds. I held those first two seeds in my hand and thought, “So is this why they can’t grow sandalwood trees -- too few seeds! I was ready to call it a day and head back down the mountain. But my son wants to see the ball park. So up the bumpy mountain road we go. We came around a switch back turn and there’s the Ball park and the same tree my friend showed me years ago! We drove up to that tree. It’s covered in seed! I climbed out of the jeep and fell to my knees, remembering the voice in my head so long ago. I take off my hat and bow my head in thanks, the wind blows and seeds fall on my head and into my hat. With tears in my eyes I promised the tree that I would grow her children. I would have children help to plant them back around her. This is how my quest as the Sandalwoodman began. To inspire the re-growth of the Old Growth Forest of the Earth. Starting with the Sandalwood forests. I have climbed the tree of life and picked the seeds of truth. Today I wish to share those truths with you. Sandalwood is an example for all of us to learn to create a symbiotic relationship with the earth, creating roots that attach our self to all life around them. Tapping into the life flow without harm. Taking only what we need and creating an abundance of food to enrich the life around us. We have drawn a line in the sands of time and planted the trees of life on it, to hold back the death and destruction of life on our Planet. For it is our carbon life cycle of our Earth that we must balance. In 20 years of growing sandalwood, I have learned that they will grow most any where a person will care for them. They will host on most any plant, and the greater the diversity of plants the better. Sandalwood likes nitrogen fixing plants. To grow sandalwoods you must go to the forest and watch them grow to learn when the seed are ripe. You must be faster than the rat to pick them before the rats do! Try to pick only ripe ones, but if a few green fall off -- please eat them! Plant your seed with fruit on it (helps it to sprout faster) side by side in black 3/8 fine cinder. This is just like it the seed lies under the trees in the forest. Cover with cinder the depth of the seed. Transplant sprouts after the seed husk has fallen off, into a well drained media with a high nitrogen time release fertilizer and with iron added to it mixed into soil. This should insure growth of a healthy tree ready to plant in 6-9 months. The deeper the pot you put the seedling in, the faster the plant will grow. Seed can sprout within 3 months to 3 years or longer. The average is about one year. The highest value of Sandalwood is to sell the nuts as the caviar of the forest

until the tree dies of natural causes. Trees that have died can then be cut down the wood used for carving, incense, oil for perfumes or medicine for venereal disease. I like to roast the nuts, then put two of them with my coffee beans in the grinder to flavor my coffee in the morning. Raw they make a great Sandalwood pesto. Roasted and dipped in Hawaiian dark chocolate. Imagine a sandalwood nut pie. The true potential of Sandalwoods as a food source has yet to be realized. But we have a lot of trees to get growing, before we are eating any pie. I speak to you today with high hope that I may inspire my fellow earthlings to grow sandalwoods, to eat the nuts and to create a better life for everyone. The alternative is that we continue to cut them all down, until they go extinct -- and us with them. In all the years I have gone to the forest I have yet to see sandalwood naturally regenerating. We created this problem by the introduction of non-native birds and ungulates(farm animals) that eat the seeds and seedlings and de-bark the trees. The birds that once spread the seed is extinct. It is our responsibility to complete this broken chain of life. I wear a single braid of hair on my head. This is a promise to the unborn children of the earth. That I will grow the Sandalwood forest for as long as that hair grows upon my head. When you work for the un-born children of the earth you can't expect them to pay you. So you do the work that needs to be done just for the fun of knowing it creates a positive change for everyone. We can make positive changes for future generations through our will power and positive determination to do what needs to be done, for as long as it takes to be done. Even if it takes a generation of education. Over the years of growing trees, I have seen the positive effect it has had. When I started reintroducing Native plants into the wild, it was not common practice. Now there are native plantings ongoing across Hawaii and our Nation. For years we have told people to contact the State Forestry and tell them to grow sandalwood trees. As of last year you can order sandalwoods from are State nursery and they are growing many other native trees and plants. Most are for out planting into forest restoration projects. On May 24 My birthday I was hired by RCUH As the Sandalwood Specialist to collect seed for the Mauna Kea Watershed Alliance. I started collecting seed In July and 8 lb for the State have been collected. With 2 lb to go to complete the Permit. In 63 Hrs. of work we were able to locate about 100 trees on State forest land and 56 on DHHL. Not a lot of trees. With only one tree healthy on the Mountain, the rest clinging to life. I contacted Fish & Wildlife Dept. and showed them the last trees and they are planning to but small enclosures to protect these trees. *lb The sandalwood forest of Hawaii are being re-grown, but there is much work yet to be done to fulfill King Kamehameha's Law -- "For every tree cut, there will be one planted". I may stand here alone, but there are hundreds of hands that have helped my hands to grow trees. There are tens of thousands of hands connected with mine with a tree in-between. Hundreds of thousands of hearts and minds have been inspired by the growing of the Sandalwood trees. With love in our hearts and positive action for our hands, we can create a symbiotic relationship with each other and the land.

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DIAMOND HEAD SCENIC BYWAY COMMITTEE

**Senate Committee on Water and Land
Public Hearing
Monday, March 23, 2015
3:00 PM
Conference Room 224**

SENATE CONCURRENT RESOLUTION 76 and SENATE RESOLUTION 36

Honorable Chair Thielen and Committee Members:

Senate Concurrent Resolution 76 and Senate Resolution 36 emphasize the urgent need for protection, preservation and propagation of the endemic and endangered native Hawaiian sandalwood, which has been culturally and historically treasured for centuries. Yet, today comparatively few remain in Hawai'i because of exploitation and export since the 1800's, threatening their extinction.

The Diamond Head Scenic Byway is a designated Hawaii Scenic Byway under National Scenic Byway guidelines. These guidelines include a Corridor Management Plan, now undertaken by the Diamond Head Scenic Byway Committee of the Diamond Head State Monument Foundation. During the course of the Corridor Management Plan's required sites and features inventory and management evaluation process, the Committee recently conducted a Tree Inventory Survey to assess the rare and exceptional trees within the Scenic Byway corridor, which includes Diamond Head's semi-wilderness slopes and crater park.

Discussion was held at length on the past historic presence of Hawaiian sandalwood native to this area, 'Iliahi'alo'e, the coastal lowland *Santalum ellipticum*, and that none could be found. Found instead are hybrid strains comingling the east Indian sandalwood species with the endangered native Hawaiian species, of which apparently only a few may remain on a high and inaccessible ridgeline - out of sight of both residents and visitors who wish to learn more about truly native plants thriving within this Scenic Byway area.

During February 2015, the Committee was advised of the following comparisons between the native Hawaiian sandalwood species and the east Indian sandalwood species, and hybrids thereof, by the O'ahu District Botanist for DLNR's Division of Forestry and Wildlife:

- The Indian species is considered as "naturalizing" at Diamond Head, i.e., spreading and growing on its own beyond where it was planted inside the crater some time ago by people in the area, and also some planted outside the park below the intersection of Diamond Head Road and Makapuu Avenue along the sidewalk.
- The non-native Indian sandalwood represents a threat to the unique genetic identity of our native coastal sandalwood.

- The hybrids are quite variable between the two parent sandalwood species, and are not an appropriate representative of Hawaii's unique native sandalwoods.
- The hybrid species now grow on the western slopes of the crater, and it has been noted that hybrid individuals now outnumber the few native coastal sandalwood plants on the inaccessible northern slopes of the crater.

Given the above, we thus **strongly support** and urge concurrent adoption of this Resolution by both the Senate and the House to establish a comprehensive program within the Department of Land and Natural Resources to ensure the protection, preservation and propagation of the native 'Iliahi on all the Islands of Hawai'i Nei - for their survival in accordance with the public trust and within the greater public interest for generations to come. Thank you for considering and supporting Senate Concurrent Resolution 76 and Senate Resolution 36, and for providing this opportunity for public testimony and support.

Most sincerely,

A handwritten signature in dark ink, appearing to read "Michelle Matson". The signature is fluid and cursive, with the first name "Michelle" and last name "Matson" clearly distinguishable.

Michelle S. Matson, Chairperson
Diamond Head Scenic Byway Committee, Diamond Head State Monument Foundation
Hawaii Scenic Byways Program, Hawaii Department of Transportation

Attachment: Page 3

Comparison of the native coastal sandalwood, *Santalum ellipticum*, with the non-native Indian sandalwood, *Santalum album*, and the hybrids that have resulted from *S. album* being planted at and naturalizing at Diamond Head State Park

Santalum ellipticum
'Iliahialo'e
Native, Endemic to Hawaii



Sprawling shrub to small coastal tree. Leaves are relatively rounded at the tip, dull grayish green in color on both surfaces and leathery to succulent in texture. Flowers are cream-colored to greenish white inside.

Santalum album
Indian sandalwood
Non-native



Small to medium-sized tree up to 25 feet in height with slender drooping branches. Leaves are pointed at the tip, thin in texture, bright green and shiny on the surface and pale green on the under surface. Flowers are red to purplish brown inside.

Santalum ellipticum x
Santalum album
Hybrid



Hybrids are extremely variable and have characteristics with some degree of intermediacy between *S. ellipticum* and *S. album*. The hybrid in the above photo is growing as a shrub form and has green to grayish green leaves that are more pointed at the tip (intermediate between *S. ellipticum* and *S. album*), and reddish flowers (indicative of *S. album* partial parentage). You would not see this combination of traits in a pure *S. ellipticum* or a pure *S. album*.

From: [Leigh-Wai Doo](#)
To: [WTLTestimony](#)
Subject: Testimony to Support of HR55/SR 36/HCR 139/ SCR 76 By C.Y. Hu
Date: Sunday, March 22, 2015 2:22:20 PM
Attachments: [image.png](#)
[Testimony to Support HR55,SR 36,HCR 139.PDF](#)

Personal Testimony to Support HR 55/SR 36/HCR 139

By

Ching Yuan Hu
425 South Street, #504
Honolulu, HI 96813

Chair and Members of the Committee:

My name is Ching Yuan Hu. I served as Associate Dean and Associate Director for Research of the College of Tropical Agriculture and Human Resources (CTAHR), University of Hawaii at Manoa from 2005 to 2010, and served as interim assistant vice chancellor for research and graduate education at UHM from 2010 to 2013. I am now a research faculty in the Department of Human Nutrition, Food and Animal Sciences, CTAHR, UHM. I am pleased to provide personal testimony on HR 55/SR 36/HCR 139. This testimony does not represent the position of the University of Hawaii or CTAHR.

HR 55, SB 36 and HCR 139 are important for us to protect and restore the remaining six species of endemic Sandalwood in the State of Hawaii. Honolulu in official Chinese translation is Sandalwood Mountain, as Oahu and other islands were covered by Sandalwood when first Chinese arrived in these islands. Unfortunately, increasing number of tourists arriving from China cannot find a single Sandalwood, and do not understand where the name came from. Most people know Koa is a slow growing tree; however, Sandalwood grows ten times slower than Koa. Sandalwood is a symbol of Hawaii, and while we are striving to preserve Native Hawaiian language, and culture, how can we sit idly and watch dwindling Sandalwood trees continues to be logged and sold?

I support these resolutions as written, as we need not only to prevent further cutting down the remaining Sandalwood trees, but also we need to plant more Sandalwood seedlings to repopulate all our islands with these graceful and marvelous trees. Recovery of Sandalwood in Hawaii sends a powerful message to all people that we care about our heritage and our environment. Stands of Sandalwood will become a tourist attraction for Chinese visitors. Sandalwood is an endangered species; we must do as much as we can to prevent it from extinction. Please pass these resolutions. Our children and grandchildren will appreciate your yes vote.

Thank you for the opportunity to testify in support of these resolutions to protect and restore our Sandalwood.

--

Leigh-Wai Doo

2800 Waiomao Homestead Road
Honolulu, Hawaii 96816
Phone: (808) 721-0006; 737-0008
Email: lwdo04u@gmail.com

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Date: Monday, March 23, 2015 10:24:24 AM

SR36

Submitted on: 3/23/2015

Testimony for WTL on Mar 23, 2015 15:00PM in Conference Room 224

Submitted By	Organization	Testifier Position	Present at Hearing
Mark Robert Hanson	Individual	Comments Only	No

Comments: Hawaii's Sandalwood Nut Trees By Mark R Hanson President Hawaii Reforestation Program Imagine you are one of the members of the first Polynesian crew that arrive here on a canoe. You are told to go collect the fruit of the land. You bring back a basket filled with what you have found. The elder of your canoe spreads your collection on his cloth and examines it. Then he takes a small rat out of a cage and places it among the fruit. She sniffs around going from fruit to fruit. She picks up this dark purple fruit and peels off the skin and thin shell and devours the white meat. She gathers and eats them all leaving a small pile of shells. Your elder has peeled one and places it in his mouth and slowly chews it. He smiles and says to the crew l'iahi (the tree of life). Its 1996 at the Hana Taro Festival on Maui. Two Hawaiian sisters reminisce about their childhood. Do you remember going to the forest with grandfather and he showed us this tree, and told us that if we are ever lost in the forest we could eat the seeds. Look Sister that's them! That's the fruit grandfather said we could eat! She looks at me, and asks what is that? Pointing at the bowl full of dark purple Sandalwood seeds. I pick one up and start peeling it, and reply, its Sandalwood nuts, would you like to try one? As I held out my hand with a peeled nut. Its 2007 I'm teaching students from Kamehameha Schools how to collect Sandalwood seed for a project on Hawaiian Home Lands. I explain to the students to try and pick the ripe seeds. If some green ones fall off too, it's ok to peel and eat them. One young man goes over to the tree and tries a seed. The class spreads out to look for more trees with seeds on them. I circle around pointing out a tree here and there. As I come back to the first tree, there's the same young man still eating sandalwood nuts. So I ask him are you hungry? He replies, "No but I can't stop eating them!" "Well try to get some ripe ones in your bag." I leave him to his munching. It was in 1980 when a friend and plant mentor took me on a hike with the Sierra club to Maui's Polipoli State Park. We walked thru the Redwood forest planted there. After we then drove up to what was called the Ball park because the CCC used to play baseball there on lunch break. My friend showed me a Sandalwood tree and told me the sad story of the Sandalwood harvest of old. As we drove away all the hair on my body stood up, Chicken skin all over and a voice in my head whispered "Some day you will re-grow the Sandalwood Forest" It's 1986 I'm walking in the forest in upper Nihiku Maui with a Kahuna. He turns to me and in a voice of power he says, "Mark you must re-grow the Sandalwood ,Koa , Ohia forests of Hawaii for the Hawaii

Nation ever to be Pono (balanced) again.” In 1992 a Musician for the Earth shares her vision of a whale coming out of the ocean to tell her that the Sandalwood forest must be grown if our world is to ever live in balance. A German couple takes the vision to heart. They ask me how to make a nursery to grow Sandalwood trees, and how to encourage children to help return Sandalwood back on the mountain. I called the State forestry department and asked “are any sandalwoods left?” The state forester told me that there are some trees scattered across the slopes of Haleakala. I then asked “Can I pick seed to start program to plant trees with children?” He tells me, yes I can try. But they are very hard to grow, and the easiest place to find seeds is in an enclosure in Polipoli State Park and at a place called the Ball park on Skyline drive. On 12 of April 1992 my son and I drove up to Polipoli Park in a rickety 1974 Toyota land cruiser. We found the enclosure along the road. Among the 5 trees there, we found only two seeds. I held those first two seeds in my hand and thought, “So is this why they can’t grow sandalwood trees -- too few seeds! I was ready to call it a day and head back down the mountain. But my son wants to see the ball park. So up the bumpy mountain road we go. We came around a switch back turn and there’s the Ball park and the same tree my friend showed me years ago! We drove up to that tree. It’s covered in seed! I climbed out of the jeep and fell to my knees, remembering the voice in my head so long ago. I take off my hat and bow my head in thanks, the wind blows and seeds fall on my head and into my hat. With tears in my eyes I promised the tree that I would grow her children. I would have children help to plant them back around her. This is how my quest as the Sandalwoodman began. To inspire the re-growth of the Old Growth Forest of the Earth. Starting with the Sandalwood forests. I have climbed the tree of life and picked the seeds of truth. Today I wish to share those truths with you. Sandalwood is an example for all of us to learn to create a symbiotic relationship with the earth, creating roots that attach our self to all life around them. Tapping into the life flow without harm. Taking only what we need and creating an abundance of food to enrich the life around us. We have drawn a line in the sands of time and planted the trees of life on it, to hold back the death and destruction of life on our Planet. For it is our carbon life cycle of our Earth that we must balance. In 20 years of growing sandalwood, I have learned that they will grow most any where a person will care for them. They will host on most any plant, and the greater the diversity of plants the better. Sandalwood likes nitrogen fixing plants. To grow sandalwoods you must go to the forest and watch them grow to learn when the seed are ripe. You must be faster than the rat to pick them before the rats do! Try to pick only ripe ones, but if a few green fall off -- please eat them! Plant your seed with fruit on it (helps it to sprout faster) side by side in black 3/8 fine cinder. This is just like it the seed lies under the trees in the forest. Cover with cinder the depth of the seed. Transplant sprouts after the seed husk has fallen off, into a well drained media with a high nitrogen time release fertilizer and with iron added to it mixed into soil. This should insure growth of a healthy tree ready to plant in 6-9 months. The deeper the pot you put the seedling in, the faster the plant will grow. Seed can sprout within 3 months to 3 years or longer. The average is about one year. The highest value of Sandalwood is to sell the nuts as the caviar of the forest until the tree dies of natural causes. Trees that have died can then be cut down the wood used for carving, incense, oil for perfumes or medicine for venereal disease. I like to roast the nuts, then put two of them with my coffee beans in the grinder to flavor my coffee in the morning. Raw they make a great Sandalwood pesto. Roasted

and dipped in Hawaiian dark chocolate. Imagine a sandalwood nut pie. The true potential of Sandalwoods as a food source has yet to be realized. But we have a lot of trees to get growing, before we are eating any pie. I speak to you today with high hope that I may inspire my fellow earthlings to grow sandalwoods, to eat the nuts and to create a better life for everyone. The alternative is that we continue to cut them all down, until they go extinct -- and us with them. In all the years I have gone to the forest I have yet to see sandalwood naturally regenerating. We created this problem by the introduction of non-native birds and ungulates(farm animals) that eat the seeds and seedlings and de-bark the trees. The birds that once spread the seed is extinct. It is our responsibility to complete this broken chain of life. I wear a single braid of hair on my head. This is a promise to the unborn children of the earth. That I will grow the Sandalwood forest for as long as that hair grows upon my head. When you work for the un-born children of the earth you can't expect them to pay you. So you do the work that needs to be done just for the fun of knowing it creates a positive change for everyone. We can make positive changes for future generations through our will power and positive determination to do what needs to be done, for as long as it takes to be done. Even if it takes a generation of education. Over the years of growing trees, I have seen the positive effect it has had. When I started reintroducing Native plants into the wild, it was not common practice. Now there are native plantings ongoing across Hawaii and our Nation. For years we have told people to contact the State Forestry and tell them to grow sandalwood trees. As of last year you can order sandalwoods from are State nursery and they are growing many other native trees and plants. Most are for out planting into forest restoration projects. On May 24 My birthday I was hired by RCUH As the Sandalwood Specialist to collect seed for the Mauna Kea Watershed Alliance. I started collecting seed In July and 8 lb for the State have been collected. With 2 lb to go to complete the Permit. In 63 Hrs. of work we were able to locate about 100 trees on State forest land and 56 on DHHL. Not a lot of trees. With only one tree healthy on the Mountain, the rest clinging to life. I contacted Fish & Wildlife Dept. and showed them the last trees and they are planning to but small enclosures to protect these trees. *lb The sandalwood forest of Hawaii are being re-grown, but there is much work yet to be done to fulfill King Kamehameha's Law -- "For every tree cut, there will be one planted". I may stand here alone, but there are hundreds of hands that have helped my hands to grow trees. There are tens of thousands of hands connected with mine with a tree in-between. Hundreds of thousands of hearts and minds have been inspired by the growing of the Sandalwood trees. With love in our hearts and positive action for our hands, we can create a symbiotic relationship with each other and the land.

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