

1 2 3 Minutes of the Board of Agriculture 4 5 6 **CALL TO ORDER** ١. 7 8 With a quorum of the members present, the meeting of the Board of Agriculture was called to order on November 24, 2015 at 9:00 a.m. by Board of Agriculture Chairperson 9 Scott Enright, at the Plant Quarantine Conference Room, 1849 Auiki Street, Honolulu, 10 11 Hawaii 96819. 12 13 Members Present: 14 15 Scott Enright, Chairperson, Board of Agriculture (Board) Jerry Ornellas, Kauai Member 16 Mary Alice Evans, Department of Business, Economic Development and Tourism 17 (DBEDT), Ex Officio Member Designated Representative 18 19 Michelle Galimba, Member-At-Large Glenn Hong, Member-At-Large 20 Clark Hashimoto, Member-At-Large 21 22 Richard Ha, Hawaii Member 23 Simon Russell, Maui Member 24 25 Members Absent: 26 27 Suzanne Case, Chairperson, Board of Land and Natural Resources Dr. Maria Gallo, Dean of the College of Tropical Agriculture & Human Resources 28 University of Hawaii (CTAHR-UH), Ex Officio Member 29 30 31 Others Present: 32 33 Roy Hasegawa, Hawaii Department of Agriculture (HDOA)/Agricultural Resource 34 Management (ARM) 35 Randy Teruya, HDOA/ARM Neil Reimer, HDOA/Plant Industry Division Administrator 36 Amy Takahashi, HDOA/Plant Quarantine Branch (PQB) Acting Manager 37 Daryl Arai, HDOA/Ag Loan (AGL) 38 Chrystn Eads, Alston, Hunt, Floyd, & Ing. 39 40 Valerie King, Sea Life Park Phyllis Shimabukuro-Geiser, HDOA Deputy to the Chairperson 41 42 Raquel Wong, HDOA/Animal Industry (AI) Todd Low, HDOA/AI 43 Sean O'Keefe, Alexander & Baldwin, Inc. 44 Janet Ashman, Hawaii Farm Bureau 45

Chris Kishimoto, HDOA/PQB

Lance Sakaino, HDOA/PQB

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1 Landon Wong, Hawaii Public Policy Advocates 2 Tyler Ralston, Private Citizen Jeri Kahana, HDOA/Quality Assurance Division (QAD) Administrator 3 4 Grant Tomita, HDOA/QAD 5 Robert Ikeno, HDOA/AGL 6 Keevin Minami, HDOA/PQB 7 Jack Beuttell, Kunoa Cattle Company 8 Bob Farias, Kunoa Cattle Company 9 Trenton Yasui, HDOA/PQB 10 Cathy Goeggel, Animal Rights Hawaii 11 Leo Obalpo, HDOA/PQB 12 Christina Zimmerman, HDOA/Pesticides 13 Matt Jisa, Private Citizen 14 Thomas Matsuda, HDOA/Pesticides Branch Manager 15 Brian Neilson, Department of Land and Natural Resources (DLNR) 16 Lorri Crocket, Private Citizen 17 Donna Smith, E.K. Fernandez Shows 18 Jade Haughian, Dolphin Quest 19 Inga Gibson, Humane Society of the US 20 Alan Takemoto, Monsanto 21 Haunani Burns, Deputy Attorney General 22 Delanie Prescott-Tate, Deputy Attorney General 23 Janelle Saneishi, HDOA/Chair's Office (CHR) 24 Micah Munekata, HDOA/CHR 25 Jonathan Ho, HDOA/PQB 26 Poka Laenui, Waianae Coast Community Alternative Development Corporation 27 (WCCADC) 28 W. Ken Koike, Farmer 29 Sook Russell, Dolphin Quest 30 Andrew Porter, Coordinating Group on Alien Pest Species 31 Donne Dawson, Hawaii Film Industry 32 33 II. **APPROVAL OF MINUTES FROM 10/27/15 MEETING** 34 35 Chairperson Enright called for a motion to accept the minutes from the 10/27/15 36 meeting: Hong/Hashimoto. 37 38 Hearing no comments, Chairperson Enright called for a vote to adopt the October 27, 39 2015 minutes as submitted. 40

Vote: Approved, 8/0.

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III. COMMENTS FROM THE GENERAL PUBLIC ON AGENDA ITEMS (ORAL OR WRITTEN)

items as they come up during the meeting. IV. INTRODUCTION AND COMMENTS

Chairperson Enright moved on to Communications from Divisions section.

Chairperson Enright stated that the Board will take public comments on the agenda

V. COMMUNICATIONS FROM DIVISIONS AND ADMINISTRATION

A. AGRICULTURAL LOAN DIVISION

1. Request for Approval of One (1) Farm Operating Loan to Big Island Produce, LLC and Big Island Produce Asset Holdings, LLC as coborrowers.

Presentation made by Robert Ikeno, HDOA/AGL, as submitted. Staff recommends approval.

Chairperson Enright called for a motion to entertain this request: Russell/Galimba.

Chairperson Enright opened the floor to questioning by the Board.

Hearing no questions or comments, Chairperson Enright called for a vote on the question.

Vote: Approved, 8/0.

B. AGRICULTURAL RESOURCE MANAGEMENT DIVISION

 Request for Authorization to Terminate General Lease No. S-1017, Issue Cancellation Document, and Dispose of Lot through Negotiation, Waianae Agricultural Park, Lot 17, Island of Oahu

Presentation by Roy Hasegawa, HDOA/ARM, and Randy Teruya, HDOA/ARM, as submitted. Staff recommends approval.

Chairperson Enright called for a motion to entertain this request: Hashimoto/Evans.

Chairperson Enright opened the floor to questioning by the Board.

Chairperson Enright: Randy, is this the lease that we have problems with sanitation?

Mr. Teruya: Sanitation and livestock, which again is not part of the character of use of the lease. It was primarily for aquacultural purposes. The lessee ended up having goats, pigs, and free range chickens roaming the lot. The lot does not have a fence and

is situated next to a residential community. Neighboring residents are getting upset with what is going on inside the property.

Board Member Russell: Ken Koike is on this lot?

Mr. Teruya: Yes.

Hearing no further questions or comments, Chairperson Enright called for a vote on the question.

Vote: Approved, 8/0.

2. Request for Consent to Assignment of General Lease No. S-8500; Hawaii Livestock Cooperative; TMK: 1st Div/9-1-031:025; Honouliuli, District of Ewa, Island of Oahu, Hawaii

Presentation by Randy Teruya, HDOA/ARM, as submitted. The current lessee of the slaughterhouse experienced financial difficulties. The projections never materialized so the necessary improvements can't be made. Mr. Teruya introduced Jack Beuttell and Bob Farias, Kunoa Cattle Company. Staff recommends approval.

Chairperson Enright called for a motion to entertain this request: Ornellas/Evans.

Chairperson Enright invited Mr. Beuttell and Mr. Farias to the front and opened the floor to questioning by the Board.

Board Member Galimba: Is there any consideration for this assignment? Is there money changing hands?

Mr. Beuttell: Yes there is. Primarily it accounts for the debts incurred by the current operator. We are helping to relieve them of their debts and taking over their facility as a result.

Board Member Hashimoto: So will you be bringing cattle from Kauai for slaughter at the slaughterhouse?

Mr. Farias: Yes. A lot of our herd from Kauai will be coming to Honolulu.

Board Member Evans: We have cattle ranches on the neighbor islands. What are the benefits of bringing cattle to Oahu where the major market might be for slaughter vs. for slaughter on the neighbor islands and then shipping prepared items to Oahu markets?

Mr. Farias: The current chokehold right now is the chilling operation, the lack of capacity at current facilities. Ranchers like myself do not put our cattle into the local market. They all get shipped off island. We don't project any growth in that market unless more

facilities can be added. More and larger facilities would be advantageous for any rancher who plans to build their herds. We need a bigger facility with more chill capacity.

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Board Member Hong: This current facility has substantial chill capacity that is currently not being utilized. Could the facility accommodate the 7,500 head and slaughter you are projecting?

Mr. Beuttell: Yes. The facility was originally designed for many thousand head per year. The chiller was designed to accommodate that throughput. There is a dry aging and wet aging process, those have different refrigeration requirements. Also depends on what our customers require. One of the chillers is currently out of use and our intent is to put that back in service. As we grow the throughput over the next five years, we will evaluate our need for more capacity.

Board Member Hong: Your market surveys indicated that current demand for the upcoming years will accommodate this level of production?

Mr. Beuttell: Yes. The simple math is that the number of calves represents ten to twenty percent of our annual beef consumption. The question for local ranchers is: what is the willingness to pay for local product as compared to imported commodity beef. That needs to be determined, but we have very favorable economics in Hawaii because we have a year round growing season, grass, and cost of production is lower, which means we can compete with commodity operators to a certain extent.

Board Member Hong: Is it economically more advantageous to send the cattle to Stockton, because you can get a better price per pound?

Mr. Farias: Profitability in Hawaii on ranching is not the problem. It's cash flow. Ranchers usually only get paid twice a year, but have labor costs, field costs, rent costs, all of that stuff like any other business that comes every 30 days. The problem with sending calves to the mainland – last December calves were selling for \$2.10, highest ever for Hawaii. They are at \$0.85 today. What I can't do as a family business is suffer those lows. That high only lasted for 4 months. We are trying to stabilize the market. Otherwise, we will be subject to the highs and lows in the market. The glass case price hasn't jumped up and down; it's the price for the unfinished calves that is jumping up and down. We are trying to stabilize that side of the market. We feel that this is an integral part, it is built, and we would like to put it to work.

Board Member Ornellas: About two years ago, the Kauai Economic Development Board did a feasibility study on the current process of local beef as well as a market study. The results were that, if you pencil it out, retaining cattle here for slaughter in the long run paid better than exporting to the mainland. As Bobby pointed out, that is a very cyclical market. Ultimately, prices crash. I will be voting in support.

Board Member Ha: What is the availability of land for rent? Are you folks able to get 2 enough land?

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Mr. Beuttell: Are you referring to the harvest facility or the production side?

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Board Member Ha: The production side.

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Mr. Farias: Large production land is in abundance. Large land owners like to lease their land in bigger parcels. There is a lot of land available to keep the harvesting facility in business.

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Mr. Beuttell: Production for ranchers and farmers has been limited by the size of the market, which to date has been exporting cattle to the mainland. There is an absolute limitation on what we can produce as ranchers because of the number of berths on the Matson container ships. By creating an alternative market here in Hawaii, it allows producers to increase their stocking rates. This is better for their profitability and land management. This is an interesting opportunity, not only for operators of the facility but also for expanding rancher profit potential.

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Hearing no further questions from the Board, Chairperson Enright opened the floor to public testimony.

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Cathy Goeggel, Animal Rights Hawaii: Provided testimony as submitted. In 1995, the Legislature approved a \$10 million loan, \$2 million for the slaughterhouse with Palama Meat Company to guarantee the loan. In 2003, there was a Rural Economic Transition Assistance Hawaii Grant of \$2 million. Later, there was a Rural Development Agency loan in which the United States Department of Agriculture (USDA) paid off the loan when HLC defaulted. In 2003, there were two loans from HDOA totaling \$600,000. I have not been able to find out exactly how far behind they are, but they do have a forbearance agreement which is supposed to be short term. As far as I can see there has never been profit. In 2009, there was another \$600,000 grant to pay for pig feed and shipping. They have received a grant for a photovoltaic system. They have been subleasing without notice to the State which is in violation of their lease. That's a trucking company and I think two trailers. I would ask that you examine this new company's plans regarding pigs. Mainland pigs are to be brought in and slaughtered here, and passed off as local. That does not support local agriculture. I ask that you defer this until we can get financial disclosure.

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Board Member Galimba: I will be voting for this because I do believe we should move forward. A lot of money has been put into this. I would have liked to see more financials. I hope that the two operators will do some good things.

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Hearing no further questions or comments, Chairperson Enright called for a vote on the question.

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Vote: Approved, 8/0.

C. QUALITY ASSURANCE DIVISION

 1. Request for Approval for a Waiver Allowing Big Island Dairy to Sell Milk at Less Than the Minimum Price in the Honolulu Milk Shed, for the Period February 1, 2015 to August 31, 2015.

Presentation by Jeri Kahana, HDOA/QAD, as submitted. Staff recommends approval.

Chairperson Enright called for a motion to entertain this request: Evans/Ornellas.

Chairperson Enright opened the floor to questioning by the Board.

Board Member Galimba: Are they going to get a refund or is this retroactive?

Ms. Kahana: It will be retroactive. Big Island Dairy asked the department for a waiver. The waiver was granted and began in September. We were asked to include the period for February through August in the waiver.

Board Member Ornellas: What is the impact on our other local producer, Cloverleaf?

Ms. Kahana: This request deals with milk sold in the Honolulu milk shed. Cloverleaf Dairy does not ship any milk to Honolulu. It only applies to Big Island Dairy.

Board Member Galimba: As far as the portion of economic analysis to ensure that this price is viable, is that being done?

Ms. Kahana: The statute says that the Board should consider it as a guide to determine the minimum prices of milk. It is really up to the Board.

Board Member Galimba: Can we ask for that analysis?

Ms. Kahana: We could ask for it and conduct a cost production study if you wish. We don't have that information right now.

Board Member Ornellas: Technically the Milk Control Act is still enforced? And part of that is analysis of profit and loss?

Ms. Kahana: Yes. Normally when we do cost production, it would be justification for any increase in prices, to ensure that producers are getting a profit.

Board Member Ornellas: I'm concerned with survivability of the dairies. I mean we can grant a waiver, but it doesn't mean that economically they will survive.

Ms. Kahana: We did not initiate this waiver. This was at the request of the Big Island Dairy. I'm sure they wouldn't have requested a waiver, if they felt that they wouldn't be able to survive.

Chairperson Enright: If Big Island Dairy has entered into contract with Meadow Gold, which stipulates the price, would a cost analysis change that?

Ms. Kahana: No.

Chairperson Enright: We have never had a situation before where the dairy has entered into a stipulated price contract with Meadow Gold or Dean Foods Meadow Gold.

Board Member Ornellas: I'm sure that analysis will show that they break even. Why would a farmer ask to sell his product for lower prices? I understand why it is being done. If we have a Milk Control Act, then we should follow it or do away with it.

Chairperson Enright: I agree. Michelle would you like to see that analysis?

Board Member Galimba: I would love to see it.

Ms. Kahana: Would you like the cost of production only on Big Island Dairy?

Board Member Galimba: Yes.

Chairperson Enright: What's a realistic timeline?

Grant Tomita, HDOA/QAD: It depends on how fast we get the information from Big Island Dairy and how far back you want to go.

Chairperson Enright: From the time they signed the contract.

Board Member Evans: If we request this analysis, my preference would be to approve the request and see the analysis.

Board Member Hong: The Milk Control Act does not apply to today's marketplace. It is a law that should be repealed. The question for the cost of production is the profit and loss of Big Island Dairy. You are asking the books to be opened in a competitive market. I don't know if that is necessary.

Chairperson Enright: I agree with first part. We need to take a look at how to amend the statute for the 21st century. We do not want to lose all the protections, but it is our intent to revisit it. We will still need the analysis. Any timeline?

Ms. Kahana: We will try to get it for the January meeting. It depends on how soon we get the numbers. Once we get them, we can complete it.

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Hearing no further questions or comments, Chairperson Enright called for a vote on the question.

Vote: Approved, 8/0

Chairperson Enright called for a 10 minute recess at 9:45 a.m.

The meeting was reconvened at 9:55 a.m.

 Chairperson Enright: I am going to take something out of order regarding the previous agenda item "Request for Authorization to Terminate General Lease No. S-1017, Issue Cancellation Document, and Dispose of Lot through Negotiation, Waianae Agricultural Park, Lot 17, Island of Oahu." The individuals that are holding the lease were not present when we initially took up that item. They are here now. They have requested that the Board reconsider their prior decision. They wish to address the board and provide testimony. I am going to allow that. The Board will not be making a decision on that request today. The matter will be re-agendized and taken up at the next meeting.

Poka Laenui, WCCADC: Provided testimony opposing the termination of Lease No. S-1017, as submitted. He said that Mr. Koike's violation of the lease was caused by state land agents' interpretation of the lease that no animal husbandry was allowed and their interference with the lessee's raising pigs, chickens, and other animals.

W. Ken Koike, Farmer: I understand my financial obligations with the State. I have come to Waianae on a mission. I am not a farmer by trade. I am a white collar boy who now camps on the Waianae coast trying to learn by training with Master Cho. I have had the opportunity to perform large scale organic farming. My biggest obstacle is the threat of eviction while trying to implement practices passed on to me from my grandparents. We can be a model for future farmers and for graduates from Nanakuli and Waianae High Schools where they would qualify for agriculture leases. We have learned the market through raising organic eggs and chickens. Through Master Cho's training, I was able to start small scale piggeries. Every step along the way, we were told that we were not allowed to raise these animals.

Mr. Laenui: Let me introduce the Waianae Coast Community Alternative Development Corporation. We are the ones that essentially introduced the backyard aquaculture tanks so today almost every school has an aquaculture tank and is raising fish in those tanks. We have more tilapia grown than any other place in Hawaii. The contract does say that husbandry is allowed. We have had to fight the agents who are trying to shut us down. That is why we have not been able to make payment. Without the animals, we cannot make the payment.

Chairperson Enright: The issue will be re-agendized for the January meeting.

D. PLANT INDUSTRY DIVISION

 1. Request for: (1) Preliminary Approval of Proposed Amendments to Chapter 4-66, Hawaii Administrative Rules (HAR), entitled "Pesticides" and (2) Approval to Hold Public Hearing. (See attached summary)

Chairperson Enright: We will be striking section 4-66-32(b) (3), relating to surface water. We won't be taking that up at this time.

Presentation by Neil Reimer, HDOA/Plant Industry Division Administrator, as submitted. Staff recommends approval.

Chairperson Enright called for a motion to entertain this request: Galimba/Ha.

Chairperson Enright opened the floor to questioning by the Board.

Board Member Russell: Are we approving all the amendments?

Dr. Reimer: These are the amendments we are proposing. We are seeking the Board's approval to initiate the amendment process, hold a public hearing, get testimony, and then come back to board with that testimony.

Board Member Evans: On item 5 under Section 4-66-66, regarding the fee for non-pesticidal evaluation, would that include roach traps sold at Longs?

 Christina Zimmerman, HDOA/Pesticides Branch: Normally, those do not require evaluation, so we would not charge a fee for that. The primary fee would be for those products that require an extensive review. We have a memorandum of understanding with the Department of Commerce and Consumer Affairs, where we have to evaluate certain types of non-chemical pest control devices and provide a level of approval to the Pest Control Board. They approve that on their own as well. We have that in our administrative rules that we comply with that. The cost of their review is extensive and requires several months and the fee would help with that.

Board Member Evans: Can you give us an example of non-chemical pest control device that would come before the pesticide board for review.

Ms. Zimmerman: Therma-pure is a heat treatment for pest control of termites. It went through review for about a year.

Board Member Evans: Do you review the efficacy or safety?

Ms. Zimmerman: We review the efficacy, the safety data, the method of employment, and observe a trial run of that type of use to determine if that use is safe for the public, if it is going to be effective, and provide a suitable service for the public.

Hearing no further questions or comments, Chairperson Enright called for a vote on the question.

Vote: Approved, 8/0

2. Request for: (1) Preliminary Approval of Proposed Amendments to Chapter 4-71, Hawaii Administrative Rules (HAR), "Non-Domestic Animal Import Rules," Including Amendment Banning Import of Dangerous Wild Animals for Performance or Exhibition; and (2) Approval to Hold Public Hearing. (See attached summary)

Presentation by Neil Reimer, HDOA/Plant Industry Division Administrator, as submitted. Staff recommends approval.

Chairperson Enright called for a motion to entertain this request: Evans/Russell.

Chairperson Enright opened the floor to questioning by the Board.

Hearing no questions from the Board, Chairperson Enright opened the floor for public testimony.

Inga Gibson, Humane Society of the US, presented testimony, as submitted. We are in strong support of this proposal. We have a few comments. In our original petition, we urged the board to exempt only AZA (Association of Zoos and Aquariums) accredited facilities and only Global Federation of Animal Sanctuaries accredited sanctuaries from the import ban. Those are the highest levels of approval. Not having this requirement may create a loophole for roadside zoos. There is a need for some accreditation (AZA) standards of zoos. We should define a zoo as funded by a municipality or the State. We do not believe that the film industry should get a blanket exemption. We appreciate all the time and effort to see this move forward today.

Donne Dawson, Hawaii Film Industry, provided testimony in support of the exemption from the import ban for film. I have had numerous experiences with the film industry and HDOA working together. I was a little concerned with the amendment to the rules, as it would be the first of its kind in the US, such a restriction could discourage filming here, and we need to think about financial impact to film industry. This is a highly competitive arena and we are constantly looking for ways to make filming in Hawaii friendlier. I don't want the film industry to be excluded from this opportunity should it arise. I feel HDOA has the proper elements in place to safeguard the public and the animals.

Matt Jisa, private citizen, presented testimony in opposition to the importation of wild animals for exhibitions or performing acts, as submitted.

Cathy Goeggel, Animal Rights Hawaii, presented testimony, as submitted. I am glad to see that the requested import ban has gotten to this point. Section 4-71-6.5 "allows government agencies to import" is too vague. We need to tighten the language. We would like to see addition of the prohibition of marine mammals. We ask that you do not exempt the film industry. There is no reason that they should have a pass when others do not. We ask that zoological parks be AZA affiliated. Changing the language a bit would help.

Chrystn Eads, Alston Hunt representing Feld Entertainment, presented testimony as submitted. We heard Mr. Reimer mention that all this has gone through technical review and there is overwhelming support saying that HDOA has current permit conditions that show the ability to take care of the concerns. A broad based complete ban on these animals is not good. There is another way to get there. We hope that you will consider further restrictions, rather than an outright ban.

Brian Neilson, Department of Land and Natural Resources (DLNR), Aquatic Resources Division, presented testimony in opposition to Nile tilapia being added to the Restricted Animal List (Part B). Nile tilapia is highly sought after because of its high growth rates. There is a strong desire statewide to use this species for backyard aquaponics operations. It is easy to grow. We feel that the more this species is out there, the easier it is to escape. In terms of its invasiveness, Nile tilapia has high tolerance and adaptability to a wide range of environmental conditions. It has successful reproductive strategies. They could impact ecosystems by out-competing native fish, preying on juvenile native fish. Tilapia can threaten mullet, milk fish, and bone fish. If this fish escaped, the burden would fall on DLNR to address this invasive species. We are beyond capacity to address this. We recommend that Nile Tilapia not be added to the Restricted Animal List (Part B).

Tyler Ralston, private citizen, presented testimony in support of the preliminary approval for the import ban on dangerous wild animals for circuses. I am here as an advocate speaking for the health and safety of Hawaii's people. I do not want the film industry exempted. In my opinion, there is no amount of economic film gain that is worth a human life. Please only allow AZA accredited facilities to import these animals. Please add that research facilities must be registered with the USDA. Please include marine animals. This rule change is long overdue.

Chairperson Enright asked Neil Reimer, HDOA/Plant Industry Division Administrator, and Amy Takahashi, HDOA/PQB to approach the board.

Chairperson Enright opened the floor to questioning by the Board.

Board Member Hong: I am concerned with the inconsistency of the exemption. If safety procedures are appropriate under conditions for film, why are they not allowed for other purposes? I think there is some inconsistency there.

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Dr. Reimer: The conditions would not be the same, when it comes to film and a circus. More people are potentially at risk at a circus. With film, that would not be the case. I would have to look at those safeguard conditions. The level of exposure to the public is quite different.

Board Member Ornellas: Regarding Nile tilapia, is it correct that a University of Hawaii (UH) study was done on the genetics of tilapia present in our streams?

Dr. Reimer: Pure bred Nile Tilapia is not in our streams, but some hybrids are. Some of the genes of the species are in our streams. There are hybrids out there, but not pure bred Nile tilapia.

Board Member Ha: What is the distinction? What is the difference?

Dr. Reimer: You need an expert to answer that. I guess it depends on the degree of genetic material.

Hearing no further questions or comments, Chairperson Enright called for a vote on the question.

Vote: Approved, 8/0

VI. OLD BUSINESS

1. Plant Quarantine Branch Status Report on Ohia Rapid Death (aka Ohia Wilt) Caused by a Fungus, *Ceratocystis fimbriata*, found on the Island of Hawaii.

Informational status report given by Lance Sakaino, HDOA/PQB, and Amy Takahashi, HDOA/PQB Acting Manager. As of November 23, 2015, USDA/Agricultural Research Service (ARS) Doctor Lisa Keith provided the following information: We are now finding the disease in two new locations, Volcano Village and Hawaii Forest, in the Volcano area. There was a report recently about identifying Rapid Ohia Death (ROD) in Kauai. HDOA went to check that report and did not see any signs of ROD. In regards to molecular testing for the fungus, the timeframe is down to 24 hours to do the testing. Originally, the testing timeframe was at 2 - 3 weeks, but now it is at 24 hours. The fungus can be alive or dead, but still is viable for purposes of DNA detection. ARS is working with Crop Production Services and Syngenta on a fungicide treatment. They are using two other methods for fungicide which is applicable for soil. They are trying to get approval to use the fungicide for drenching.

Regarding the permitting process, HDOA has received several permit applications for importing of logs to Honolulu and Kauai. Two shipments were approved from Hawaii Island to Oahu for construction purposes. Each of those shipments was found to be free of the disease.

Regarding soil, we are working with one nursery for the compliance program where ARS Dr. Lisa Keith has tested soil used for Plant it Hawaii. Because of their Best Management Practices, we are considering them as a model for HDOA and finalizing that agreement form. Plant It Hawaii is ready to ship out as the compliance program has been finalized. Soil is very low risk, but the disease can still be viable. A compliance program for soil should be followed. We still need to have the testing of soil done.

Regarding Ohia plants, no one is shipping them from the Big Hawaii Island. The permitting process for logs and posts has resulted in one shipment being rejected for testing positive, two passed inspection, and one pending. Everyone is following the procedure right now. There appears to be no problem with the application process. We must get people to know if they are shipping soil, they need to be in the compliance program.

Chairperson Enright opened the floor to questioning by the Board.

Board Member Ha: I attended the meeting with Hawaii Nursery folks. It was mentioned that at Lava Tree State Park outside of Pahoa, you can see dead Ohia trees on the side of the road. The Rose Apple Trees are all dead from ohia rust from the bushes to the mountain as they sit along a stream. My worry is that is possible with Ohia. Is water a vector?

Mr. Sakaino: Dr. Lisa Keith tested water. Laboratory experiments using liquid suspension from ROD determined that the fungus is viable in water. The fungus does not reproduce in water but can remain viable. It is possible the fungus can travel in water, but movement in soil, frass, and wood chips is most prevalent.

Board Member Ha: So, basically, we can imagine them all dead.

Mr. Sakaino: That's just a study at this time.

Board Member Ha: This problem is way bigger than agriculture. The whole state is responsible for it, not just HDOA. The Legislature needs to throw some serious money at it.

Mr. Sakaino: There are a lot of agencies involved. We need funding for more programs. We are doing a lot of educational outreach.

Dr. Reimer: The disease that devastated the Rose Apple Trees is Ohia Rust. Can we see a similar thing happen here? It is a little too early to tell, but what we are seeing is that it is a possibility. We are seeing some massive die back for Ohia trees. It moves slowly, but there is a 100% mortality rate in areas where established. There may be some resistant varieties of Ohia.

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Board Member Ha: When we find out it's too late.

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Dr. Reimer: This all started last summer and we saw that we really need scientific information. We are ahead of the game, but there are a lot of unknowns

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12 Chairperson Enright: We are out ahead of the science. We need more science to move 13 forward. Statute gives HDOA the ability to quarantine. We have moved pre-emptively 14 because it's in the best interest of the State.

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16 Board Member Ha: I'm not criticizing, but it is bigger than us.

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18 Chairperson Enright: The work that's being done on Ohia Wilt is with other agencies like 19 the UH Extension Service, US Forest Service, and DLNR.

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Dr. Reimer: There is a multiagency task force with a standing monthly meeting to update everyone. It is well recognized as a large issue.

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Board Member Ha: It is well recognized among the meeting attendees, but the general public should know.

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27 Board Member Evans: Is Ohia Rust related to Ohia Wilt?

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Dr. Reimer: No, both are fungi but they are very different.

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Board Member Evans: You mentioned that Ohia Rust affects Rose Apples. Are Ohia and Rose Apple trees related?

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Dr. Reimer: They are similar. Ohia Rust hit Ohia and never really took off, but demolished the Rose Apple. ROD has only affected Ohia.

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Board Member Evans: Is USDA Pacific Basin Agricultural Research Center (PBARC)
 getting federal funds?

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Dr. Reimer: I'm not sure. PBARC is involved and I assume they are using federal funds.

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43 Board Member Evans: Is the US Forest Service taking the lead?

- 1 Chairperson Enright: Senator Schatz headed that. They are looking to find monies.
- 2 The Department will as well.

Board Member Galimba: Have you had help with nursery folks that are using soil?

Mr. Sakaino: At this time, I only have one nursery using earth soils. Several nurseries get testing for Little Fire Ant and Coqui, but only Plant It Hawaii is participating in the Best Management Practices program.

Dr. Reimer: Most nurseries use cinder or media, so they are not using soils. Soil is not very commonly used but we do not know how much is out there.

Board Member Galimba: Is there a way for us to get that information?

PQB Acting Manager Ms. Takahashi: We can put out a survey to various nurseries to see what media they use and put out more outreach and education.

Board Member Ornellas: Right now, there is no prohibition on moving soil from Hawaii.

So if I'm a landscaper on Big Island, I can move landscaping material?

Dr. Reimer: That's true, but we are considering the whole Big Island infested. We have found it on Hilo side and Kona side. It is not really obvious until trees succumb to it which could take years. The quarantine is to stop the disease from spreading to other islands. It can move freely within the Big Island.

Board Member Russell: I heard you say to drench with fungicide. I think we should consider an experiment to enhance microorganisms to stop the spread. Rather than treat the forest by drenching.

Dr. Reimer: The drenching method was for potted material, not for the whole forest. I don't think it is practical to use chemicals on the whole forest. It is more to treat specific items before moving them from the Big Island.

Board Member Russell: What are some ideas to stop the spread in the forest?

Dr. Reimer: There are specific agencies that work in the forest and they have protocols in place to address this, like having a change in clothing, change in boots, etc., when they move from one area to another.

Board Member Russell: What about heavy equipment movement in the forest?

42 Dr. Reimer: It's been discussed. I haven't heard specifics on what has been done.

Board Member Russell: Is this DLNR's jurisdiction?

1 Dr. Reimer: If it's a forest, then it would not be under HDOA jurisdiction.

Board Member Ornellas: The pathogen is airborne at some point I'm assuming, so how does it get from one tree to the next?

Dr. Reimer: We do not know that it is airborne. We know it is found in frass which is the droppings from insects. It possibly could be carried on insects. It is spores. We do not know that it is airborne. It could be water- borne or it could be wind-borne.

Board Member Ornellas: How does a tree get infested?

Dr. Reimer: They don't know yet. That's part of the problem. When we put in a quarantine, that is one of the first questions we want to know in order to stop it from moving. We do not know yet.

Mr. Sakaino: One thing that Dr. Lisa Keith has found is that the plant needs a wound in order for the fungus to colonize. Root graphing is another way to transfer the fungus.

Board Member Hong: As of January 1, soil movement off island is supposed to be prohibited. Do you have an inspection protocol in place?

Chairperson Enright: I was going to move the effective date to February 1. The science isn't there yet.

Board Member Hong: For the shipping industry, has the department reached out to the industry staff? Has there been any outreach?

Mr. Sakaino: Yes. Young Brothers Hilo staff is awesome. We are working well together.

Chairperson Enright: Richard, you met with the nursery industry, is there anything you wanted to share from that conversation regarding their concerns?

Board Member Ha: My take is that they were satisfied with the way things were. Focus was on that one nursery and there was a positive outlook with them.

Chairperson Enright: I am thinking of changing the effective date for soil movement permitting to February 1. We will revisit this at the January meeting.

Hearing no further questions or comments, Chairperson Enright moved to the next order of business.

VII. NEW BUSINESS

There was no new business.

VIII. ADJOURNMENT OF REGULAR MEETING

 Having no further business before the Board, Chairperson Enright called for a motion to adjourn the meeting: Hong/Galimba. Chairperson Enright called for a vote on the motion.

Vote: Approved, 8/0

10 Meeting adjourned at 11:22 a.m.

Respectfully submitted,

Board Secretary