



## Aquatic Feeds and Nutrition Department (AFN) Hosts the Biofuels Co-products Workshop



Sponsored by Wenger Manufacturing

Thursday, December 1<sup>st</sup> & Friday, December 2<sup>nd</sup>, 2011

9:00 a.m. to 4:00 p.m. Oceanic Institute Learning Center (directions attached)

*Topics: Utilization of Co-products from the Biofuels Industry in Aquatic Feeds and Demonstrations of Feed Manufacturing Techniques Using These Ingredients*

### Thursday, December 1<sup>st</sup>

8:30 am: Coffee and Refreshments

8:45 am: (01) **Introduction** - Dr. Warren Dominy, Director, Aquatic Feeds and Nutrition Department, Oceanic Institute.

9:00 am: (02) **An Integrated System to Produce Food, Fuel, Energy in Hawaii** – Dr. Bob Shleser, Founder and former Chief Technology Officer for Clear Fuels Technology Inc.

### Production of Ingredients

9:30 am: (03) **Defatted Algal Co-products** – Dr. F.C. Thomas Allnut, Senior VP of R&D, Phycal.

10:00 am: (04) **Whole and Defatted Algal Co-products** – Dr. Jeff Obbard, V.P., Science and Technology, Cellana LLC.

10:30 am: Coffee break

11:00 am: (05) **Whole Algae and Algal Co-product** - Dr. Gerry Cysewski, Chief Science Officer, Cyanotech.

11:30 am: (06) **Oil Press Cakes** – Mr. Bob King, President, Pacific Biodiesel.

12:00 pm: (07) **Bioconversion of Biofuel Residues into Aquatic Feed** – Ms. Saoharit Nitayavardhana, Dept. of Molecular Biosciences and Bioengineering. University of Hawaii, Manoa.

(08) **Value Added Co-product from Jatropha Biodiesel Production Process** - Dr. Rakshit Devappa, Dept. of Molecular Biosciences and Bioengineering. University of Hawaii, Manoa.

12:30 pm: Light Lunch

### Utilization of Ingredients in Aquatic Feed

1:30 pm: (09) **Evaluation of Algae Co-Products as a Potential Alternative Ingredient for Cattle, Fish and Shrimp** - Dr. Addison Lawrence, Professor, Texas A&M University

(10) **Adding a defatted algae byproduct (*H. pluvialis*) to diets in Shrimp Growth and Pigmentation** – Dr. Zhi Yong Ju Research Scientist, Oceanic Institute.

(11) **Evaluation of Biofuel Co-Products as Ingredients for Aquafeeds**- Dr. Dong-Fang Deng, Research Scientist, Oceanic Institute.

### Friday, December 2<sup>nd</sup>

8:30 am: Coffee and Refreshments

### Utilization of Ingredients in Aquatic Feed

9:00 am: (12) **Algae Co-Products as Potential Alternative Ingredients for Sea Urchins &**

(13) **DDGS as a Potential Alternative Ingredient for Shrimp Feeds**- Dr. Addison Lawrence, Professor, Texas A&M University.

9:30 am: (14) **Abalone (*Haliotis discus hannai*)** - Ms. Cecilia Viljoen, R&D Director at Big Island Abalone

(15) **Research Proposal: Developing Feeds for Hawaii Abalone &**

(16) **Enhanced Growth-Pond Floc to Shrimp Diets** - Dr. Zhi Yong Ju, Research Scientist, Oceanic Institute.

10:30 am: Coffee Break

11:00 am: (17) **Aquaculture of the Giant Opihi (*Cellana talcosa*)** - Dr. Harry Ako, Professor Department of Molecular Biosciences and Bioengineering. University of Hawaii, Manoa

(18) **How does Opihi Culture Relate to Biofuels?** - Mr. Vernon Sato, Algal Consultant.

12:00 pm: (19) **Extrusion Process for Aquatic Feeds** - Mr. Joe Kearns, Aquaculture Processing Technology Manager, Wenger Manufacturing.

12:30 pm: Light Lunch

1:00 – 4:00 pm: **Tour of AFN Facilities and Demonstration of extruded feed using algal co-products in Shrimp, Moi, Abalone, Opihi and Urchin Feeds** - Mr. Peter Hutchinson, Director, EN Hutchinson Ltd, Ward Kashiwa & Gavin Nagaue, Research Associates, Oceanic Institute.

**Workshop is Free!** Please email or call Lindon Hansink to reserve a seat, space is limited.

Email: [lhansink@oceanicinstitute.org](mailto:lhansink@oceanicinstitute.org) or call (808) 259-3180



### Directions to the Oceanic Institute

The Oceanic Institute is located at 41-202 Kalaniana'ole Highway, Waimanalo and is in the same location as Sea Life Park. It is about 15 miles from Waikiki and can take 30-45 minutes to travel to OI.

Biosecurity requirements stipulate that visitors do not visit any other aquaculture facility (research or commercial) 72 hours prior to coming to OI. In addition, visitors must have showered and changed clothes after coming in contact with ocean water and after handling uncooked crustaceans or other seafood.

To get to OI coming from Honolulu, UH, Waikiki or the airport, follow H1-East through Waialae, Kahala, (where the freeway ends and it becomes Kalaniana'ole Hwy) Aina Haina, Hawaii Kai, Sandy Beach and Makapu'u Point. The Makapu'u Point Lighthouse is on the right and Sea Life Park is just after the turn on the left. **Go past Sea Life Park and the Oceanic Institute sign and continue on to the next left turn at OI's entrance across from the Makai Pier. After turning off of Kalaniana'ole Hwy, the Oceanic Institute's Learning Center will be the first building that you come to on your left. Please park in the parking lot and enter the visitor's lobby where you will be met.**

When coming from the Windward side go through Waimanalo on Kalaniana'ole Hwy. until you come to the Makai Pier which will be on your left. Turn right at the OI sign and park in the first parking lot that you come to.

If you have any questions or need help with hotel reservations please contact Lindon Hansink at (808)259-3180 or by e-mail at [lhansink@oceanicinstitute.org](mailto:lhansink@oceanicinstitute.org).