



FASABE Continuing Education Program

Wednesday Afternoon June 21, 2017

Pump Station Design

Overview of Advances in the Field and

Guidance in Proper Pump & Power Unit Selection

4.0 Continuing Education Units (CEU) FBPE Provider #0003844



Instructors:

Curt Missall, Tradewinds Power Corp. General Manager - Sebring

Curt Missall has 32 years of experience with 20 Years at Tradewinds Power Corp. Mr. Missall specializes in the production, manufacturing, engineering and design of generators, power units, pump sets and controls.

Geoff Elkins, Regional Manager of Enovation Controls

Geoff Elkins regional manager of Enovation Controls has 22 Years of experience in the distribution, manufacturing and instrumentation of industrial engines.

Michael Ross, PMP, Southwest Research Institute Program Manager

Michael Ross is the program manager at Southwest Research Institute as a mechanical engineer in his 26-year career he has managed the Engine Emissions Consulting Service, the Heavy-Duty Engine Benchmarking Program, projects to develop and validate EPA heavy-duty engine test procedures, and a series of projects for the Propane Education and Research Council to evaluate the performance and emissions of modern propane-fueled engines.

Michael Waldron, Tradewinds Power Corp. Agricultural Sales

Michael Waldron, has been assisting agricultural clients in proper pump selection for over 20 years. He has been with Tradewinds Power Corp. since 2014.

- 1:00 PM Welcome, Kimberly McCue, PE, FASABE Continuing Education VC
- 1:10 PM Customized Application: Maintaining Discharge Water Level with Variable Engine RPM Control, Curt Missall, Tradewinds Power Corp., General Manager - Sebring
- 1:50 PM Engine Controls – Modern Solutions for Technical/Smart Ag Applications, Geoff Elkins, Enovation/Murphy Controls
- 2:30 PM *Networking Break sponsored by:*



- 3:00 PM Tier 3 and Tier 4 Diesel Engines and EPA Policies Relative to Their Use, Michael Waldron, Tradewinds Power Corp., Agricultural Sales
- 3:40 PM Liquid Propane and Spark Ignited Open Power Units for Agricultural Applications, Michael Ross, Southwest Research Institute Program Manager
- 4:20 PM Question & Answers
- 4:45 PM Adjourn



Florida Section ASABE 2017 Annual Conference

Thursday, June 22, 2017

General Session: Biology, Energy, Water – Engineering Challenges for the Future

Keynote Panel Address Sponsor:



8:00 AM Trade Show Opens – Coffee Station – Pompano/Dolphin/Sailfish

Sponsored by: **Senninger**
Irrigation Inc.

9:00 AM Welcome - Richard V. Scholtz III, Ph.D., Florida Section ASABE Chair

Maynard M. Herron, P.E., ASABE President

9:15 AM Introduction of Keynote Panel, Jason Strenth, P.E., FASABE Program Vice-Chair

9:25 AM Dr. Pratap Pullammanappallil, UF ABE, Future Challenges for BioProcess Engineering

9:50 AM Barry Jacobson, P.E., Solar Impact, Inc., Current and Future Trends in Solar Energy

10:15 AM *Trade Show & Networking Break in Exhibit Hall – Pompano/Dolphin/Sailfish*

Sponsored by:



10:45 AM Steven Dwinell, Director, Office of Agricultural Water Policy, FDACS, Challenges Presented by the Implementation of the Clean Water Act in Florida

11:10 AM Kevin P. Wills, Senior Economist, Southwest Florida Water Management District, Strategic Water Supply Plan

11:35 AM Panel Discussion / Question and Answer Session

12:00 PM Lunch on Your Own



Florida Section ASABE 2017 Annual Conference

Thursday Afternoon, June 22, 2017

*Afternoon Technical Session A
(Graduate Student Presentation Competition)
Amberjack*

Sponsored by:



Soil and Water Engineering Technology, Inc.

Moderator: Dr. James Leary, PE, UF ABE

- 1:30 PM** **Development of a Wireless Sensor Network for a Strawberry Advisory System. Thiago Borba Onofre. UF ABE Department**
- 1:55 PM** **A Three-step Ferric Catalyzed Process for Monomeric Phenols and Free Sugars from Agricultural Residues. Joe Sagues. UF ABE Department.**
- 2:20 PM** **Citrus Canopy Profile Generation Using Ultrasonic and LED Based Distance Sensors. Sanjeev Gangadharan. UF ABE Department.**
- 2:45 PM** ***Refreshment Break located in Trade Show Exhibit Hall – Pompano/Dolphin/Sailfish***

Sponsored by:



Poster Session: Controlling Temperature and Relative Humidity in Greenhouses Using a Liquid Desiccant Dehumidification System. Waleed Bin Masoud, UF ABE Department

- 3:15 PM** **Synthesis-based Watershed Delineation in Flat Landscape Shifts Nutrient Sources and Restoration Burden. Karl Wallace. UF ABE Department**
- 3:40 PM** **Immature Citrus Fruit Detection Using Visible and Thermal Images. Hao Gan, UF ABE Department**
- 4:05 PM** **Extraction Efficiency of Bio-actives from Microwave Assisted Hydrothermally Liquefied Winery Waste. Dr. Satyanarayan Dev, Florida A&M University BSE Department**
- 4:30 PM** **Adjourn Session**



Florida Section ASABE 2017 Annual Conference

Thursday Afternoon, June 22, 2017

Afternoon Technical Session B Bonito

Sponsored by:



Moderator: Mark Luchte, PE, Southwest Florida Water Management District

- 1:30 PM** **Evaluation of Undersized Stormwater Retrofits within the Southeastern US Coastal Plain. Dr. Eban Bean, PE. UF ABE Department**
- 1:55 PM** **Emergency Watershed Protection After the 2014 Panhandle Storm. Jason Strenth, PE. USDA-Natural Resources Conservation Service**
- 2:20 PM** **Facilitating Agricultural Resource Management Systems (FARMS) - Cost Share Opportunities. Gene Altman, PE. Southwest Florida Water Management District**
- 2:45 PM** ***Refreshment Break located in Trade Show Exhibit Hall - Pompano/Dolphin/Sailfish***

Sponsored by:



Poster Session: Controlling Temperature and Relative Humidity in Greenhouses Using a Liquid Desiccant Dehumidification System. Waleed Bin Masoud, UF ABE Department

- 3:15 PM** **Latt Maxcy Ranch North Everglades Nutrient Reduction Project. Michael Clough, PE. Cardno, Inc.**
- 3:40 PM** **Denitrification Bioreactors and Interceptor Wells for Nitrate Mitigation on Sandy Soils. Dr. Del Bottcher, PE. Soil and Water Engineering Technology, Inc.**
- 4:05 PM** **Recent Biosecurity Incidents and Concerns. Bill Reck, PE. USDA-Natural Resources Conservation Service**
- 4:30 PM** **Adjourn Session**

Poster Session

Displayed in Trade Show Room, Author available during Thursday Afternoon Break
**Controlling Temperature and Relative Humidity in Greenhouses Using a Liquid Desiccant
Dehumidification System. Waleed Bin Masoud, UF ABE Department**



Florida Section ASABE Awards Presentation and Reception Buffet Thursday Evening – June 22nd 6 PM – 8:30 PM *Terrace*

Cash bar opens at 6:00 PM; Buffet Dinner will open at 6:30 PM

Reception Sponsor:



Asmussen Engineering LLC.

Engineering & Environmental Services

P.O. Box 1998, Okeechobee, FL. 34973-1998 Office: (863) 763-8546 Fax: (863) 467-8560

Support the Florida Section Scholarship Programs at the Silent Auction!



Bid high and Bid often! Check out this year's silent auction items on display in the Trade Show Hall. Proceeds will benefit the three Florida Section ASABE scholarship funds: UF ABE, UF AOM, and FAMU BSE and other student award categories. The highest bidder on each item will be able to designate which fund his/her donation will go towards. The auction will end at the Awards Reception on Thursday evening.



Florida Section ASABE 2017 Annual Conference

Friday Morning, June 23, 2017

8:30 AM – 10:30 AM

8:30 AM – 12:00 PM

Conference Registration

Trade Show Hours

Morning Session A

Amberjack

Session Sponsored by:



ROYAL CONSULTING SERVICES, INC.

8:30 AM Trade Show Opens – Coffee Station in Pompano/Dolphin/Sailfish

Sponsored by:

**BDA BREEDLOVE, DENNIS
& ASSOCIATES, INC.**
Environmental Consultants

Moderator: Kevin Wright, PE, Generation Farms

- 9:00 AM MIL Database and Water Conservation Reports. Camilo Gaitán, PE; Florida Department of Agriculture and Consumer Services – Office of Agricultural Water Policy
- 9:25 AM Optimizing Stormwater Reuse to Reduce Groundwater Withdrawals for Agricultural Operations. Kimberly McCue, PE & Daniel Rutland, PE. Royal Consulting Services. Inc.
- 9:50 AM SFWMD Bolles Canal Widening Project. David Scott, PE. Jacobs Engineering
- 10:15AM Refreshment Break - Pompano/Dolphin/Sailfish

Sponsored by:



- 10:45 AM Energy Conservation by NRCS. Tony Harvey. USDA-Natural Resources Conservation Service
- 11:10 AM Environmental Resource Permitting in the Florida Keys. Stuart McGahee, PE. Tetra Tech
- 11:35 AM Renovating Storm Water Pump Stations. Pat Kirby, PE. Mock•Roos
- 12:00 PM Adjourn



Florida Section ASABE 2017 Annual Conference

Friday Morning, June 23, 2017

8:30 AM - 10:30 AM
8:30 AM - 12:00 PM

Conference Registration
Trade Show Hours

Morning Session B *Bonito*

8:30 AM Trade Show Opens – Coffee Station in the Pompano/Dolphin/Sailfish
Sponsored by:



Moderator: Dr. Nathan Bailey, FAMU BSE

9:00 AM Innovative Water Management Utilizing Florida Wetlands. Mitch Griffin, PE. CH2M

9:25 AM Starke By-Pass Mitigation Area. Tim Sagul, PE. Suwannee River Water Management District

9:50 AM Wetland Restoration. Taylor Kroll, PE. AMEC Foster Wheeler

10:15 AM Refreshment Break – Pompano/Dolphin/Sailfish

Sponsored by:



10:45 AM Laurel Wilt Disease Detection and Evaluation the Effect of Time after Leaves Collection by using Visible Near Infrared Spectral Reflectance Method. Jaafar Abdulridha, PE. UF ABE Department

11:10 AM Study Abroad Program in Osnabruck, Germany. Dr. James Leary, PE. University of Florida ABE Department

11:35 AM Seeing the Forest for the Trees in the SW Amazon: Global Analysis of the Disturbance Component of a Complex Ecological Model. Geraldine Klarenberg. UF ABE Department

12:00 PM Adjourn



Florida Section ASABE 2017 Annual Conference

Friday Afternoon, June 23, 2017

TECHNICAL TOUR OF SFWMD L-8 RESERVOIR PROJECT

Named one of Florida Engineering Society's nine "Engineering Projects of the Century"

1:00 – 5:00 PM



TRANSPORTATION: WE WILL MEET IN THE LOBBY TO CARPOOL TO THE SITE

Come see the L-8 project we have learned about in previous conferences! We will be visiting the South Florida Water Management District L-8 Reservoir Project in western Palm Beach County. The project stores over 45,000 acre-feet of water within an area of approximately 1000 acres. The geology of the area allows water to be stored between elevation -37 and 16.5 feet. The G-538 Inflow Gate Structure flows up to 3000 CFS into the reservoir by gravity using a 50 feet wide spillway and the G-539 Pump Station can flow between 150 and 450 CFS of water out of the reservoir. Be prepared for a hot and sunny field trip (or maybe a typical rainy June afternoon).

Saturday Morning, June 24, 2017 FASABE Annual Business Meeting

- 8:00 AM Florida Section ASABE Executive Committee Breakfast (Includes incoming and outgoing officers) Sinclair's Restaurant
- 9:00 AM Florida Section ASABE Business Meeting – *Marlin*
2016-2017 Officer Reports
Introduction 2017-2018 Officers
UF Agricultural and Biological Engineering Department Update
FAMU Biological Systems Engineering Update
Florida Section Business
- 11:00 AM Conference Adjourns