

# WATER QUALITY WORKSHOP

February 19, 2017

8:30 - 4:30

Aquaculture America 2017

*Water quality management is KEY for efficient and profitable aquaculture.*



## Instructors

## Workshop Content

Participants will learn about:

### **Water Chemistry**

- ⇒ Acid-base relationships
- ⇒ Hardness/Alkalinity
- ⇒ Nitrogen Cycle
- ⇒ Total dissolved solids
- ⇒ Dissolved oxygen
- ⇒ Redox potential
- ⇒ Toxic metabolites and algal compounds

### **Basics of recirculation aquaculture systems (RAS)**

- ⇒ Solids control
- ⇒ Gas conditioning
- ⇒ Biofiltration
- ⇒ Examples and case studies



**Claude Boyd**

Professor, Researcher,  
Author

Claude Boyd has taught classes on water quality and water quality management at Auburn University for 45 years. He and his graduate students have conducted research and published many papers on these topics. Boyd has also written several books on water quality and water quality management in aquaculture. He has consulted on water quality issues with aquaculture farms, governments, and mining, manufacturing, and public utility companies in over 40 countries.



**Chris Good**

Research Veterinarian

Chris Good is the Director of Aquatic Veterinary Research at The Conservation Fund's Freshwater Institute (Shepherdstown, WV). Chris earned a concurrent DVM and PhD in 2006 at the Ontario Veterinary College, Canada, and has worked as a research veterinarian at The Freshwater Institute for 10 years. His research and consultation focuses on improving the sustainability of the aquaculture industry through enhanced health and welfare of farmed fish, with a focus on salmonids in recirculation aquaculture systems (RAS).

Visit [WAS.org](http://WAS.org)  
for more information



Is water quality and chemistry important in aquaculture? **IT IS!**

**Sponsored by:**  
**USAS**



- Want a better understanding of aquaculture water quality chemistry and parameters?
- Want to use water quality parameter data to improve animal health and production?
- Join us for a day to learn ways to achieve these goals and become more efficient and successful at interpreting and managing water chemistry in aquaculture settings.

## Agenda - February 19, 2017

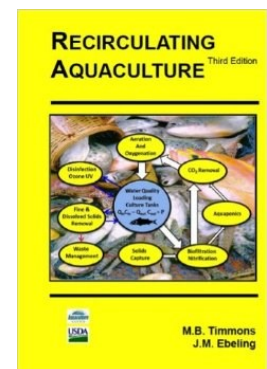
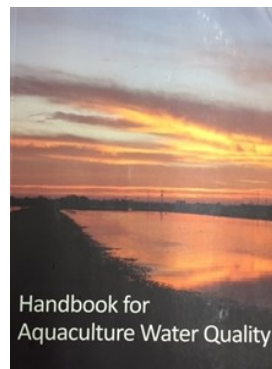
- ➔ 8:00—8:30 am - On-Site Registration
- ➔ 8:30—Workshop Objectives/Introduction
- ➔ 8:45—10:00 - Dr. Claude Boyd
- ➔ 10:00—10:15 - Mid-Morning Break
- ➔ 10:15 am—12:30 pm - Dr. Claude Boyd
- ➔ 12:30—1:30 - Lunch
- ➔ 1:30—2:30 - Dr. Claude Boyd
- ➔ 2:30—2:45 - Afternoon Break
- ➔ 2:45—4:30 - Dr. Chris Good
- ➔ Discussion
- ➔ Adjourn

## Pricing Information

- ◆ Base Price - \$200
- ◆ US Chapter of WAS Member Pricing - \$100
- ◆ US Chapter of WAS Student Members - \$50

(WAS members who are not USAS members can get chapter pricing by joining the chapter for \$5.00)

\* Attendees will receive a USB Key with course material.



### **Relevant Texts**

#### **Handbook for Aquaculture Water Quality**

Claude E. Boyd and Craig S. Tucker

(Available at the workshop for \$45)

#### **Recirculating Aquaculture**

Timmons, M.B., Ebeling, J.M. (2007). Cayuga Aqua Ventures, Ithaca NY

(Available on-line at Amazon.com, Abe-Books.com and Half.com)