

# WATER QUALITY WORKSHOP

March 7, 2019

8:30 - 4:30

Aquaculture America 2019

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



## Instructors

### Workshop Content

Participants will learn about:

#### **Water Chemistry**

- ⇒ Dissolved and suspended solids
- ⇒ pH/Carbon dioxide/Hardness/Alkalinity
- ⇒ Nitrogen and Phosphorus Cycle
- ⇒ 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 49 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).



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

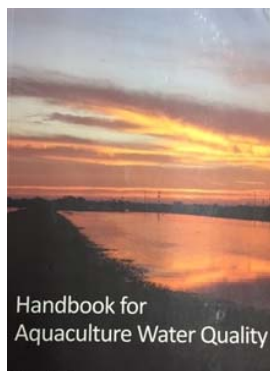
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**USAS**



- 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



**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., Guerdat, T., Vinci, B.J. 2018  
Ithaca Publishing Company, Ithaca NY  
(Available on-line at  
[www.ithacapublishingcompany.com](http://www.ithacapublishingcompany.com))

**Pricing Information**

- ◆ **Stand Alone Workshop Registration - email John Cooksey ([admin@was.org](mailto:admin@was.org))**
- ◆ Base Price - \$300
- ◆ US Chapter of WAS Member Pricing - \$150
- ◆ US Chapter of WAS Student Members - \$75  
(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.