



OFF-FLAVOR & MITIGATION

INDUSTRY PERSPECTIVE

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ACCOMPLISHMENTS



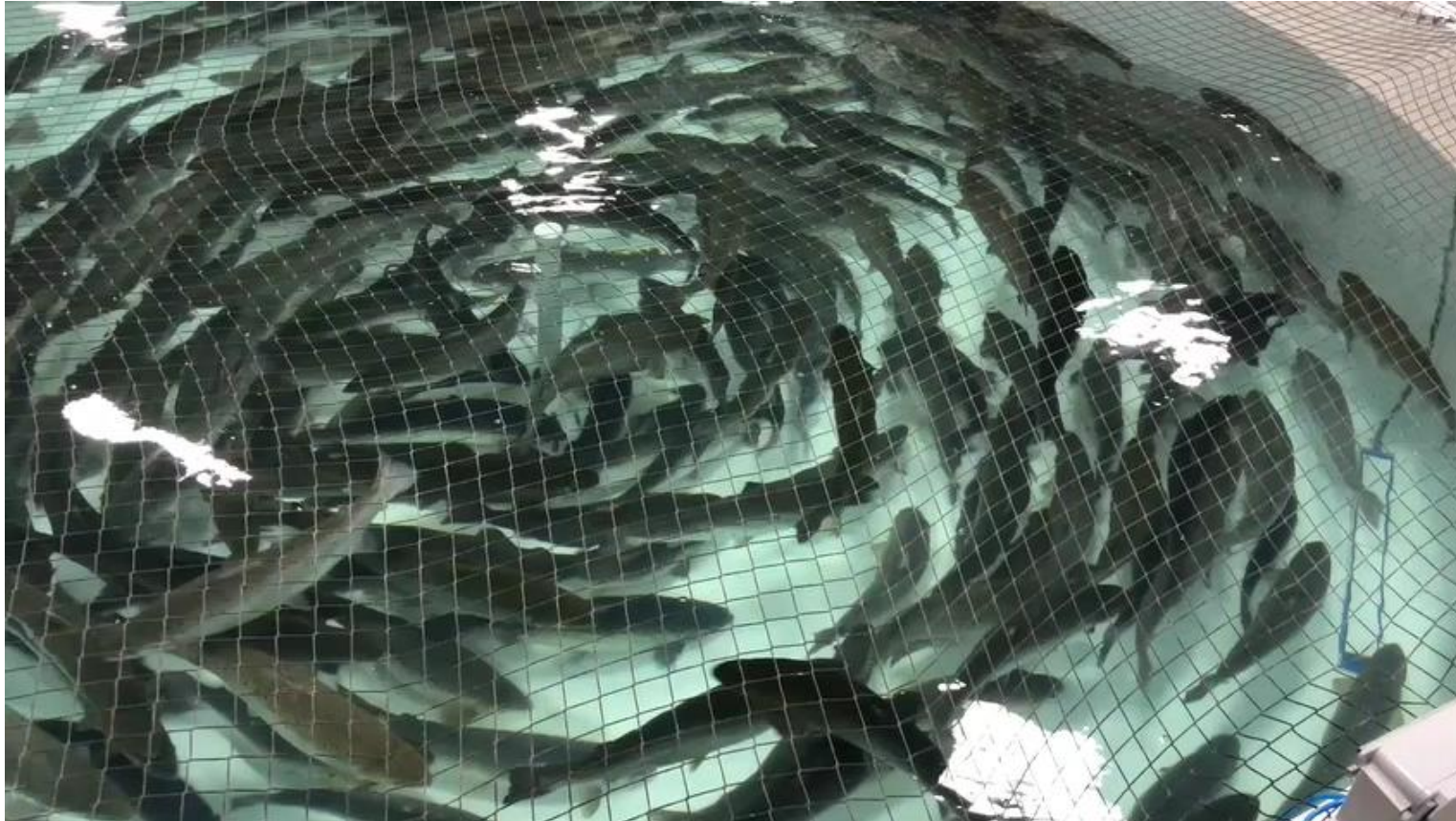
- 1st Land-Based Atlantic salmon producer in USA
- Largest aquaponic producer in the world
- Producing over 100,000 lbs. of food per 1 GPM supplied to production and processing systems
- Zero discharge from production and processing



FILLET QUALITY IS QUINTESSENTIAL



FINISHING TANK



Maintain the salmon in geosmin/MIB-free water for sufficient time to remove geosmin/MIB from fish



RESEARCH REQUIRED NOW

- Verify the threshold of human detection of geosmin in Atlantic salmon
 - 400 ng/Kg (Davidson et al., 2014)
 - Variability with Super-Tasters



INDUSTRY PRACTICES

TO MITIGATE OFF-FLAVOR

- Finishing process
 - Take salmon off feed & purge in place or move them to purge tank
 - Flush purge tank with geosmin-free water
 - Disinfect purge system surfaces between cohorts
- Supply feed ingredients that reduce off-flavors in fish at harvest (does this really work?)
- Technologies & practices to prevent geosmin from being produced in RAS
 - Cleanliness, reduce BOD / improve water quality in RAS, biome selection
- Technologies to remove geosmin from purge or RAS water
 - Example, AOP by Exciton Clean Water Treatment

WELCOME JACK HOLLAND

GENERAL MANAGER, EXCITON CLEAN WATER TREATMENT

