









RAS LARVAE CULTURE A TOOL IN SOLVING THE WATER QUALITY PUZZLE?

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LOCATION



GWYNN'S ISLAND



WHAT HATCHERIES DO

























PREMIER PRODUCT



OUT TO THE FARM









CHANGES IN WATER QUALITY 1984 - 2018







SPECIFIC NEED



ENVIRONMENTAL CHANGES





RAS SHELLFISH LARVAE CULTURE (RASSLC)





- 2019 trials at VT AREC and VIMS ESL
- short culture periods
- static larvae culture
- short overall reactor run time
- short culture period, but reasonable performance

RAS SHELLFISH LARVAE CULTURE



- 2020 trials at OSH
- static larvae culture
- full length culture periods
- relatively short overall reactor run time ~6 weeks
- no significant difference between SOP and RAS

2021 VA SEA GRANT FRG PROJECT



- 2021 FRG funded new system construction at OSH
- Design capacity of 10M larvae per week
- integrate flow through larvae culture
- long overall reactor run time ~5 months
- 2 stage bio-reactor system



KEYTAKEAWAYS



- Significant impact on hatch rate during suboptimal water quality period
- algae quality key weather RAS or SOP
- despite low biomass carbonate chemistry does require maintenance.
- It works! Only not real great yet.

NEXT STEPS

- Address equipment issues
 - calcium reactor
 - carbonate chem monitoring
- SK Project (Schwarz/ Ovissipour et al)
 - Commercial Enhancement of Bivalve Hatchery Sustainability Through Applied Technology Application
- Run, Run, Run.

