

# Hatchery Production of Oyster Seed and Spat on Shell

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Issues from the perspective of single oyster  
commercial farming

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# Major Considerations

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- Seed Limitations
  - Availability and quality of sperm and eggs
- Projected Production
  - 2021 up to 50M R6 singles (80% triploid, 20% diploid)
  - And this is expected to keep increasing
- Current potential innovations and adaptations
  - Diversity of tetraploid stock
  - Cryopreservation
  - Hatchery system improvements



# Bottlenecks to Increased Production

## **Perceived (inaccurate?)**

- We need for more hatcheries
- We need larger/mega hatcheries
- We need State-supported or non-profit hatcheries
- We need to increase seed prices to spur investment in hatcheries
- We should build more nurseries to increase seed production

## **Real**

- Regulatory restrictions regarding movement of broodstock, seed and sperm
  - Prevent disease transfer
  - Preserve genetic integrity

# Suggested Solutions

Develop & make available tetraploid stocks to existing hatcheries

- Non-royalty based tetraploids are easier to disseminate

Develop superior performing diploid and tetraploid lines

- Consider both high\* and low salinity regimes (\*higher salinities are more of a priority based on location of shellfish approved waters)

Develop out-of-season conditioning protocols for both diploid and tetraploid breeding stocks

University and non-profit hatcheries should not engage in commercial production but work with existing business to solve industry problems



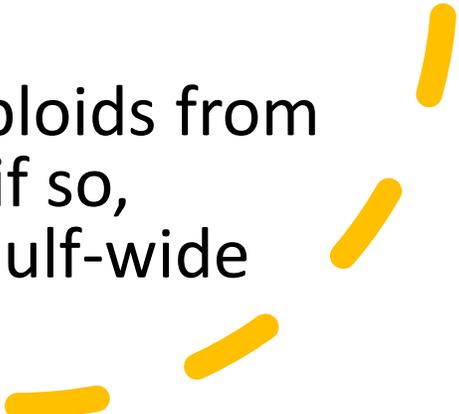
## Suggested Solutions, Continued...

Gulf states need to determine if Dermo threat is geographically real enough to warrant continued health certificate testing requirements

- If no, then tetraploid sperm and/or broodstock could be more easily transferred between areas

States should determine the importance of transferring diploid stock as related to genetic integrity

States should determine that if triploids from tetraploids are unable to spawn – if so, triploid stocks could be available Gulf-wide





Questions?  
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