Gulf of Mexico Oyster Genetics and Breeding Research Consortium: SALT (Selection of Aquaculture Lines with improved Traits)

The purpose of this consortium is to assist industry and state agencies by developing genetic resources for the eastern oyster *Crassostrea virginica* of the Gulf of Mexico and creating a breeding program to improve production and market value traits as directed by industry needs. With the help of the Business Advisory Council along with consortium members we have put together a survey with the hopes that these efforts will address the most pressing industry needs.

Business Advisory Council

Alabama
Lane Zirlott
John Webster
Florida
Don McMahon
Jeff Tilley
Louisiana
Boris Guerrero
Mississippi
Andy Fountain
Jennifer Jenkins
Texas
William Balboa
Lee Knezek

Consortium Members

Eric Saillant, Principal Investigator
Kelly Lucas, Principal Investigator
William Walton, co- Principal Investigator
Huiping Yang, co- Principal Investigator
Leslie Sturmer, co- Principal Investigator
John Scarpa, co- Principal Investigator
Brian Callam, Project Partner
Tom Rossi, Project Partner

Please take the time to fill out this survey as we want your input on traits that you think are most important to support you and other Gulf coast oyster farmers. The results of the survey will be used to direct the project for traits that we will attempt to improve in selected lines during the breeding program. Please respond by checking the box for each trait listed on a scale from 1-5. If you have any comments, concerns, or traits not listed that you are interested in, please use the comments section to bring these to our attention. Return completed survey by email to ***heather.king@usm.edu*** *or mail to: University of Southern Mississippi – GCRL, Attn: Heather King, 703 East Beach Drive, Ocean Springs, MS 39564.*

Industry Survey of Desired Traits for Gulf Oysters

Name (optional): **Email (optional):**
State: **Company (optional):**
Operation (please check all that apply) ☐ **Grow-out** ☐ **Nursery** ☐ **Hatchery**

Ranking criteria (Please check appropriate box):
1. Greatest importance 2. High importance 3. Medium importance 4. Low importance 5. Least importance.

Potential Target Traits for Breeding	Ranking				
	1	2	3	4	5
Yield-Focused Traits					
Improve growth and survival in high water temperatures	☐	☐	☐	☐	☐
Improve growth and survival in low water temperatures	☐	☐	☐	☐	☐
Increased tolerance to low dissolved oxygen	☐	☐	☐	☐	☐
Disease resistance during grow out**	☐	☐	☐	☐	☐
Environments with high fluctuations in salinity					
Improve growth and survival when salinity is low in spring and summer and higher during cold months (north central Gulf pattern)	☐	☐	☐	☐	☐
Environments with low fluctuations in salinity					
Improve growth and survival at high salinity	☐	☐	☐	☐	☐
Improve growth and survival at mid salinity	☐	☐	☐	☐	☐
Improve growth and survival at low salinity	☐	☐	☐	☐	☐
Market-Focused Traits					
Improve shell shape in regard to cup and fan	☐	☐	☐	☐	☐
Eliminate 'backbend' at hinge	☐	☐	☐	☐	☐
Increase shell thickness to reduce shell breakage	☐	☐	☐	☐	☐
Hatchery-Focused Traits					
Increase reproductive capability resulting in higher quality and quantity of gametes	☐	☐	☐	☐	☐
Timing of reproduction	☐	☐	☐	☐	☐
Increased survival in the hatchery	☐	☐	☐	☐	☐
Disease resistance in the hatchery**	☐	☐	☐	☐	☐
Increased set rate	☐	☐	☐	☐	☐

*** If important, state which disease(s) in the comments (e.g. Dermo disease, vibrio/bacterial diseases, tolerance to toxic algal blooms, etc.)*

Comments: