

Microbial Hazards Associated with Pre-Harvest Culture Practices



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UNH & NH Sea Grant Program

NESSA 2019

Two current projects underway

- “Oyster Culture and Harvest Practices to Reduce Pathogenic *Vibrio parahaemolyticus* Concentrations in the Northeast US”
 - 1Y, ISSC funded, involves NH, MA & CT
- “Assessing Microbial Safety Issues Associated with Emerging Shellfish Aquaculture Practices to Increase Productivity in the Northeast US”
 - 3Y, NOAA/Sea Grant funded, involves ME, NH & MA

Investigators & Growers

- NH: Chris Nash-SCA, Cheryl Whistler-UNH, Arron Jones-NHSG, Brooke Dejardon-SCA, Josh Carloni-grower
- ME: Lori and Tom Howell-growers, Dana Morse-MESG, Kohl Kanwit-SCA
- MA-Chris Schillaci-SCA, Jack Blake, Jeremy Scheffer and Roy Scheffer-growers
- CT: Kristen DeRosia-Banick-SCA
- FDA: Jessica Jones-advisor

Combined Objectives

- Evaluate state regulations and common pre-harvest aquaculture activities
- Conduct a general hazard analysis of potential and real public health risks
- Design and conduct field assessment trials to evaluate dimensions of practices of concern to states
- Use newly developed methods for detection of pathogenic *Vp* strains, in concert with standard detection methods for total *Vp*
- Monitor environmental and climate conditions affect pathogenic *Vp*
- Provide results for updating regional risk assessments for *Vp* and for determining risk indicators for *Vp* in oysters
- Summarize findings for presentations and technology transfer to state programs and growers in and beyond our region.
- Propose language to SCAs for management guidance and to ISSC for specific Nssp proposals/ requirements

General Conditions

- There is direct participation of SCA staff, Sea Grant extension and oyster growers.
- Select field trials based on each state's needs, with the intent to identify regionally useful parallels in approaches.
- The main focus is on Vp management, but one project includes bird congregation on surface gear.
- The experimental design for common practice trials will be consistent to allow for regional comparisons .

Practices to be Evaluated

- Re-submergence following warm air exposure in ME, NH and MA
- Deep water transplant in MA
- Bird-borne fecal contamination in ME & NH
- Post-Harvest Time to Temperature Control Process Methodology in CT
- Baseline Vp levels & environmental conditions May-October in ME, NH, MA & CT

Outreach-here at NESSA

- We want to share results and get information from anyone here in the Northeast who is interested in the work we are doing-

On with the panel!