IMAS scientists will give the deadly Pacific Oyster Mortality Syndrome (POMS) virus the cold shoulder this summer as part of a new approach to tackling the virus that devastated Tasmania’s oyster industry over the last two summers.

In partnership with oyster farmers, the researchers will trial whether putting batches of oysters in refrigerated containers at times when POMS is most active will help to reduce oyster mortality.

Dr Sarah Ugalde, who along with IMAS colleagues Dr Christine Crawford and Lewis Christensen is working with oyster farmers to tackle the virus, said at the end of summer the oysters that spent time in the refrigerator will be compared with those that remained outside.

“This potential solution was identified quite by accident when some oysters that had been temporarily stored in a refrigerator during a POMS outbreak showed a surprisingly high survival rate,” Dr Ugalde said.

“We are now putting that observation to the test through this scientific trial.”

“The POMS virus is temperature dependent and only becomes active when water temperatures are consistently above 18 degrees Celsius.

“We know that oysters can survive for over one week in very cool conditions, such as a home refrigerator. Putting farmed oysters in refrigerated containers when the POMS risk is high is a simple, small step that could help to make a big difference.

“The tubes and baskets that the oysters grow in on a farm can be lifted and put into the containers without individual oysters being handled or disturbed, which will help to minimise stress.”

Dr Crawford said cooling the oysters on a farm could work in two different ways.

“Cooling may deactivate the virus completely, or at least slow it down, and the respite from high temperatures could reset the oyster’s metabolism, similar to hibernation,” Dr Crawford said.

“We’ll be testing whether chilling the oysters for as little as a day or two can make a difference.”
“At the end of summer we’ll compare mortality rates among oysters that spent time in the refrigerated containers with those that spent the entire summer outside.

“If this strategy is successful all oysters across an entire farm, regardless of age, size, and genetics, could be cooled during times of high risk when water temperatures are consistently above 18 °C.”

Dr Ugalde said Tasmanian farmers had faced the loss of up 95 per cent of their oysters after POMS was first detected in Pitt Water in January 2016 and spread rapidly to other major oyster growing regions on the East Coast.

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**IMAS Media Contact:** Andrew Rhodes (03) 6226 6683 or 0417 239 537, email: ajrhodes@utas.edu.au

**Information released by:**
Communications and Media Office, University of Tasmania
Phone: 61 3 6226 2124
Email: Media.Office@utas.edu.au