

# POMS UPDATE - SUMMER 2017/18: #9 - NOV'17

## BIOSECURITY TASMANIA - JOHN PRESTON

### SUMMER SURVEILLANCE TESTING

I trust that everyone has had a productive winter and spring and is ready for the summer and whatever POMS will throw at us this year. Since our last regular newsletters, Christine and I have travelled to New Zealand where we gained many valuable insights into how the New Zealand industry is managing living with POMS 7 years after it first appeared there. If you haven't already done so I recommend reading our full report that was in the previous issue of the POMS Newsletter.

Locally, it is noticeable that water temperatures are increasing around the state and a quick comparison with water temperatures from the same time last year shows that water temperatures are consistently higher across the state. As a result I have started contacting bay groups to start the process of preparing for Summer Surveillance testing.

This testing initially will concentrate on the 3 areas that are classified as being Free of POMS at this time. The testing will be the same as last year with a requirement that water temperatures reach 18c for a period of 18 days before samples representative of the stock profile of the bay will be sampled and PCR tested for the presence of POMS virus. In those areas that do not have access to the Yield I will rely on assistance being provided by growers to record daily temperatures.

In all areas to be tested I will be contacting growers and asking for the details of stock held on their respective leases so that I may develop a stock profile for their bay/growing area. Once the stock profile is known, the representative sampling requirements can be determined and growers will be advised of the samples required for their leases.

For Proof of Freedom testing in the 3 free areas, up to 80 samples will be collected from each growing area. These samples will then be PCR tested for POMS at Mt Pleasant laboratories. If the samples remain negative, this process will be repeated at the end of summer to check that these areas remain free heading into winter.

One of the difficulties with trying to arrange this type of testing program is the need to coordinate sample collection so that it fits with the capacity of the lab to receive and process the samples. In particular, there is limited capacity with the lab in the period immediately after Christmas and through January. With the warmer water temperatures this year I am hoping to get the majority of this testing done before Christmas.

### TESTING OF OTHER AREAS

Testing will be undertaken in a number of other areas around the state after the testing of the 3 free areas. Some of these other areas will include, Great Oyster Bay, Dunalley Bay, Great Bay and Eaglehawk Bay.

## TESTING OF KNOWN INFECTED AREAS

Some growers have asked me why do I still test leases in the known infected areas. It is a reasonable question given that we know that POMS has been recorded in that area before and we expect to see it again, year after year. Firstly I will confirm that I do test 1 lease in a known infected area each year. The reason I do this is that I want a PCR confirmation of the first reported activation of the virus in each of the infected areas. This provides valuable information in relation to when the virus first activates in each area and adds substantially to our knowledge of how the virus behaves. I do not do any other testing in infected areas other than that initial confirmation test.

## MOVEMENT PERMITS

Previously issued Movement Permits expired on 31 October 2017 so if you have a need to move stock or used oyster equipment, please check first that you have a current movement permit to do so.

As many of you are aware there have been some changes made to the movement permit system and it is envisaged that there may be further amendments made to some forms of permits. Essentially it is now a fact of life that POMS is here to stay and we need to ensure that there is the appropriate balance between the need to preserve the Biosecurity of our Free areas whilst not making unnecessary administrative burdens on the Industry.

To this end I intend to explore, in consultation with Oysters Tasmania, further opportunities to streamline the movement permit system.

As it stands at the moment though, there are 2 permit periods in the year. The first of these is from the 1 December to 31 March and the second is from the 1 April to the 30 November.

If you intend to move oysters or used oyster equipment make sure you have a permit. If you are uncertain of any issues in relation to permits, please call me.

## FINALLY...

As always, if you do experience any unusual mortality events on your farms, in the first instance contact me on the numbers below. I think that this summer could potentially be very active in the POMS sense and as such, I urge everyone to remain vigilant and continue to employ good Biosecurity practices in whatever they do with their oysters

And if you have any concerns in relation to POMS or Biosecurity please don't hesitate to contact me.

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## IMAS - CHRISTINE CRAWFORD AND SARAH UGALDE

We have been busy preparing research projects on POMS over summer in collaboration with oyster farmers in the infected areas. Sarah has been busy setting up on farms, and has an assistant Lewis Christensen. We appreciate all the support we have received from farmers in developing these projects, including practical advice, supplying oyster spat and helping set up the gear; many thanks. A summary of the research is provided below.

### 1. *Window of Infection*

*Objective:* To determine the period of infection, which describes when the oysters are vulnerable to disease, including when the virus is first activated and if there is one virus outbreak or several waves of the disease.

Again Shellfish Culture have kindly provided us with spat -2240s (EBV ~80%), with the first deployments in early to mid-November. Based on what was learnt last year, we have made some changes to make the information more relevant to industry. We are focussing on two locations, Pipeclay Lagoon and Pitt Water, because they have had relatively high mortalities over the past POMS seasons. At each location, spat will be deployed at 4 sites in both floating units (same as last year), and also in tubes on racks next to farmed oysters. Spat will be replaced every 2 to 4 weeks, and those collected will be analysed for mortality and viral load (qPCR) over the previous fortnight. Some extra spat will also be deployed in tubes for the entire summer, and subsamples periodically taken to monitor cumulative mortality.

### 2. *Handling and Density*

*Objective:* To investigate the effects of handling and stocking densities on oyster mortalities. This is a joint project between industry (lead: Justin Goc) and IMAS.

Unchallenged 20-30 mm oysters have already been deployed at two sites in Pitt Water, and one each in Pipeclay Lagoon and Blackman Bay. One location also has pre-exposed 20-30 mm oysters. These oysters are stocked at two different densities (100 and 200 oysters per tube), and will be handled in three different ways; no handling all summer, monthly mechanical grading, and monthly hand grading. The project will collect information on oyster mortality/survival, total weight, size, predation, tube biofouling, and oyster condition. In addition, information will be collected on water chemistry (temperature, salinity, chlorophyll, and dissolved oxygen from in situ loggers) and labour/operational requirements by farmers.

### 3. *Age/Size*

*Objective:* To investigate the survival of oysters of the same genetics but different age/size combinations during summer exposure to POMS. This is a joint project between industry (Shellfish Culture) and IMAS.

Three size classes (4-5 mm, 6 mm, and 8 mm), across four ages (5-14 months) from the same family breeding lines will be deployed mid-late November. Information will be collected on mortality/survival, total weight, size, predation, tube biofouling, water chemistry (temperature, salinity, chlorophyll, and dissolved oxygen) and labour/operational requirements by farmers.

#### 4. Chilling

*Objective:* To investigate whether chilling oysters can reduce the severity of disease and mortalities during summer exposure to POMS. This is a joint project between industry (lead: Justin Goc) and IMAS.

Two groups of oysters, 20-30 mm unchallenged oysters (EBV ~ 80%) and slightly larger 30-40 mm pre-exposed oysters (EBV ~80%) have been deployed at Pitt Water. There will be two freezing treatments varying in timing and length of freezing, with some oysters remaining on the farm for comparison. Information will be collected on mortality/survival, viral load (using qPCR analysis) and water chemistry as above..

IMAS is also commencing research on *Ostrea angasi* aquaculture, in conjunction with industry, We will be focusing on best husbandry techniques for farming angasi oysters and extending the shelf-life through treatments such as freezing and modified atmospheric packaging. Please contact us if you are interested in being involved or have any priorities for angasi research.

Finally, we wish everyone the best of luck over the approaching POMS season. Fingers crossed there won't be too many oyster mortalities.

Please feel free to give us a call if you have any questions or comments.

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