



QUEENSLAND OYSTER
GROWERS ASSOCIATION

Queensland Oyster Industry Update 2024

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on behalf of

QOGA and QDAF

Qld snapshot



Production

- Small industry – limited supply but large demand in Qld
- 16 commercial growers – 66 utilised areas / 352 hectares
- Mainly SEQ concentrated, some Nth Qld
- Predominantly Sydney Rock Oyster (SRO)



Source: Koorinal Oysters

Challenges

- Approval for wave suppression within Marine Parks
- Disease pressure (QX)
- Access to land bases
- Over catch
- Limited commercial species options

Qld snapshot



Opportunities

- Improved / new species options
- New production areas
- Improved farming methods
- Unmet demand



Source: Koorinal Oysters

Wins

- New Strategic Plan for Qld oyster industry (2023–2032)
- Establishment of Qld Oyster Industry Network (QOIN)
- New research with QDAF (over catch, new varietal options)
- QDAF Policy is funding engineering of wave suppression infrastructure



Established industry / government collaboration and co-investment into R&D

- Testing of new Rock oyster varieties (Black lip, Lineage G (Sunshine oyster), Richmond River) for QX resistance and rapid growth (Max Wingfield to present on this)
- Establishing appropriate policy and regulatory settings to support improved farming systems and access to aquaculture land bases
- Over catch project



R&D: Reduction of oyster waste

Establishing best practices for controlling wild spat under commercial production



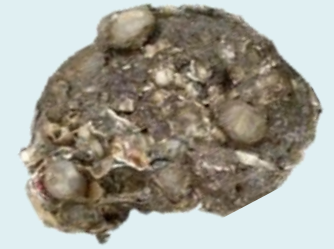
The work has been supported by the End Food Waste Cooperative Research Centre whose activities are funded by the Australian Government's Cooperative Research Centre Program.

2022-023: Reduction of oyster waste: Establishing best practices for controlling wild spat under commercial production, is supported by funding from the Fisheries Research and Development Corporation on behalf of the Australian Government.



The challenge

- **'Over catch' or 'fouling'** – juvenile oysters (wild spat) or other organisms attach to semi-mature oysters
- Enormous losses and waste (unmarketable / mortalities associated with treatments)



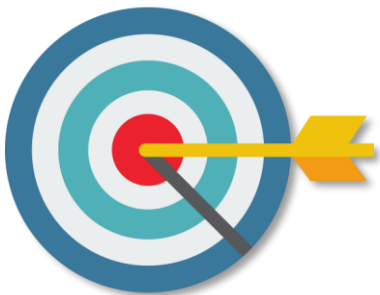
30–50% wasted

SRO grown in Qld and NSW

\$13–30M pa

(excluding labour costs)

Overarching aim



Identify **best solutions** for controlling over catch while maintaining host SRO health; comparing **existing and emerging methods** under **commercial production**



Comparing 5 over catch control methods



1. Air drying



2. Boiling



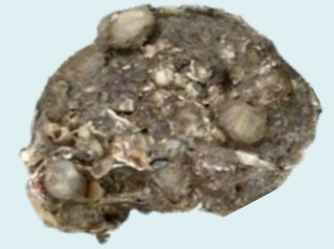
3. SED Graders Cold Shock



4. Floating bag system



5. AMS Qyster system



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(excluding labour costs)





2024 Oyster Trials



Preliminary testing and observations



**Smaller /
younger oysters
less capable of
withstanding
harsher
treatments**

SED Graders Cold Shock



After initial installation and testing

Pros:

- Relatively fast throughput (~20,000 oysters in 3 hrs)
- Running full system on solar and lithium batteries
- -18 °C is possible
- Can achieve total kill of over catch and host at -18 °C, 45 secs

Cons:

- Need to identify optimal submergence time and temp for different size host oysters and over catch
- Difficult to maintain optimal salinity at 23% and temp at -18 °C
- Cleaning out the bath post-operation challenging

The project will address these issues



Floating bag system

Pros:

- Improved control of over catch
- Extensive labour and infrastructure cost savings
- Faster growth and fatter oysters
- Increased production

Cons:

- Requires wave suppression within open coastal waters – not currently allowed under QDAF Policy
- Note, QOGA is working with QDAF to fast-track approval of this infrastructure



Qyster is a trademark of Aqua Mould Systems NZ Limited (AMS)



QYSTER



Qysters are seeded in to pods at around 8mm width held in place by a restraining clip. Qysters grow to full size of around 75mm length in around 9 months



The Qyster logo is moulded into the pod and the shell of the Qyster grows around the logo creating a brand in each Qyster



Qysters are able to be easily displayed for dining on the little legs forming part of the shell design supporting the fully grown Qyster



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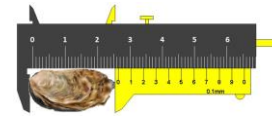
What we will measure:

Three monthly



Mortality (bag level)

- Live count #
- Dead count #
- Weight of bag contents, ex. bag (kg)
- Weight of live contents, ex. bag (kg)



Size & shape (25 oysters / bag)

- Shell height (SH)
- Shell length (SL)
- Shell width (SW)
- Total wet weight (TWW)
- Fan and cup ratios

Fouling (25 oysters / bag)

- Oyster (wild spat) #
- Mussel #
- Barnacle #
- Hydroids #
- Tubeworm #
- Tunicates #
- Algae (% shell covered)



Final response measurement

Quality & condition

- Quality index
- Condition index
- De-fouled weight (g)

GRADE (Distribution)	BODY & MANTLE CONDITION (this grading system applies to all size ranges)	SHELL FULLNESS (Distribution)
A SUPREME Very good condition (one with full closure across the body and mantle, open the shell and may be above shell perimeter, consistent across alignment)	 Body 0 - Mantle 0 Body 0 - Mantle 1	 0
B PREMIUM Naturally plump, the condition over closure across the oyster and fan length over the shell margin may be visible (not necessarily across alignment)	 Body 1 - Mantle 0 Body 1 - Mantle 1 Body 1 - Mantle 2 Acceptable Body 0 - Mantle 1	 1
C THRIFTY Generally plump condition over with no large area of the body and mantle opening to produce cracks or other obvious and/or unacceptable damage	 Body 2 - Mantle 0 Body 2 - Mantle 1 Body 2 - Mantle 2 Body 2 - Mantle 3	 2



Anticipated outputs



BMPs for controlling over catch using existing air drying and heat immersion methods



Guidelines on appropriate installation and operation of SED Graders Cold Shock system under commercial conditions

- Including flow rates, critical temps, submersion times
- Metrics indicating efficacy in terms of over catch kill rate and retention of host SRO health



Guidelines on appropriate installation and operation of floating bag system under commercial conditions

- Metrics indicating efficacy in terms of over catch kill rate and retention of host SRO health



Guidelines on appropriate installation and operation of AMS Qyster system under commercial conditions

- Metrics indicating efficacy in terms of over catch elimination and retention of host SRO health



Future trends and opportunities for Qld industry



Brisbane 2032
Olympic and Paralympic
Games Host
Queensland



- Increase demand and supply of oysters, especially local and fresh
- Establish productive commercial oyster areas along Qld Coast – new farming systems and species
- Support regional development and jobs
- Foster indigenous enterprise
- Sustainability – supporting environmental outcomes
- Showcasing Queensland oysters to world audience at 2032 Olympic games





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Queensland
Government



Thank you!