

Aquaculture Update

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NSW Oyster Industry Field Days 2006

Around 220 people attended the Oyster Industry *Field Days* conducted at Port Stephens and Batemans Bay in 2006. The *Field Days* included presentations by industry members and Government agencies as well as a variety of trade displays.



The audience at Batemans Bay

Following is a summary of the *Field Day* presentations.

Select Oyster Company (SOCo) - Future Directions (Speakers; Ray Tynan and Anna Hansen)

SOCo is a non profit company formed to commercialise Sydney rock oyster breeding lines developed by NSW DPI for fast growth and disease resistance. Ray provided an overview of the structure of SOCo and its plans for the future. Ray reported that to date the company had produced approximately 30 million spat that had been taken up by industry. Ray reported that there has been a significant shift in orders towards the fast growing QX resistant line for the 2006–07 production cycle. Orders for this line are currently standing at around 17 million spat and are likely to grow significantly. Ray stressed the need to place Expressions of Interest for orders as early as possible to enable SOCo to plan for next year's hatchery runs to ensure that the industry demand can be met and farmers are not disappointed.

Anna Hansen from the Animal Genetics & Breeding Unit University of New England gave an overview of the project she is undertaking on behalf of SOCo. This will enable the company to focus its breeding line development on those oyster traits that will maximise returns to industry. This includes estimating the dollar value of improvements in such traits as growth rate, disease resistance, shell shape etc. Under this project Anna has been visiting and interviewing oyster farmers throughout NSW to ensure that the project accurately reflects the commercial requirements of the NSW oyster industry.

Further Information:

Ray Tynan – SOCo. Ph (02) 6495 6398 Anna Hansen – AGBU University of New England. Ph (02) 6773 2945

Breeding Better Sydney Rock Oysters (Speaker: Dr Wayne O'Connor)

Dr Wayne O'Connor, Senior Research Scientist, from NSW DPI Port Stephens Fisheries Centre gave a summary of the progress in oyster research currently being undertaken by NSW DPI. Wayne reported continued improvement in growth rate and QX disease resistance in the Sydney rock oyster breeding lines.

The fast growth line is now reaching marketable size approximately one year earlier than the wild population controls. Wayne indicated that the 'acid test' is currently being applied to the QX resistant lines in the very heavily QX affected Kimmerikong oyster finishing area in the Hawkesbury River. QX resistant line oysters maintained in this area during the 2006 QX outbreak suffered 15% mortality in comparison to 91% experienced by wild control oysters held side by side. A great result for industry. Wayne also indicated that QX resistant line growth rate did not appear to be significantly different to the fast growth line. He also reported that significant advances had been made in the reliability of batches of Sydney rock oysters produced in the hatchery.

Wayne also gave a brief overview of the department's involvement in research into: identifying genetic markers in the Sydney rock oyster that will accelerate progress in breeding QX resistance; the long term storage (cryopreservation) of Sydney rock oyster sperm and eggs to protect the advances made in the breeding lines; alternative methods for reliably producing triploid oysters; and oyster research being conducted with other organisations including Macquarie University, Sydney University, University of NSW, Newcastle University, University of Tasmania , Southern Cross University and Queensland University of Technology.

Further Information:

Dr Wayne O'Connor - DPI. Ph (02) 4916 3906

Shellfish Hatcheries & Commercial Reality (Speaker: Richard Pugh; Shellfish Culture Ltd)

Richard is the General Manager of Shellfish Culture Pty Ltd, one of the major shellfish hatcheries supplying shellfish (triploid and diploid Pacific oysters; commercial scallops; mussels and flat oysters) to the Tasmanian and South Australian industries. The company has been in business for over 25 Years and apart from its hatchery operations has nursery and farming operations in Tasmania and South Australia. The company also supplies triploid Pacific oyster spat to farmers in the Georges River, Hawkesbury River and Port Stephens.

Richard provided a detailed insight into commercial shellfish hatchery operations including potential problems.

Richard outlined the company's forward ordering process and stressed the critical need for farmers to plan well ahead to enable hatcheries and nurseries to have the required amount of stock on hand. Shellfish Culture encourages farmers to have forward orders in place up to 12 months in advance.

Further Information:

Richard Pugh - Shellfish Culture Ltd. Ph (03) 6248 9441

The Hawkesbury River - 2 Years On (Speaker: Rob Moxham)

Rob Moxham put a farmer's perspective to the impact of the QX outbreak on the Hawkesbury River industry. Robby described the progression of the disease since 2004 and the measures that had been put in place to rebuild the industry in the Hawkesbury. Rob stressed the importance of considering the risk of QX and the need to prepare a QX contingency plan at a local estuary level. He also stressed the importance of working closely with government to identify and make use of the available assistance should QX occur. Although still early days, Rob is optimistic for the future of the Hawkesbury River industry as it shifts to growing triploid Pacific oysters and QX resistant Sydney rock oysters. On their first attempt, triploid Pacific oysters grown in the Hawkesbury won a Silver Medal at the 2006 Fine Food Awards.

Further Information:

Steve McOrrie - DPI. Ph (02) 4916 3921

Current QX Status

(Speakers: Mark Bully, Tony Troup, Kel Henry & Kevin McAsh)

The NSW DPI QX Disease Closures are in the process of review following the detection of the disease in the Wooli and Macleay Rivers. To assist this process a QX Technical Working Group and an Industry Consultative Group have been formed. Mark, Tony, Kel and Kevin provided an overview of the current QX status in NSW and encouraged individual estuaries to look ahead and prepare contingency plans to minimise the risk and impact of QX. To assist in this process a discussion paper has been prepared and is available from NSW Farmers' Oyster Section.

Further Information:

Jane Frances - DPI. Ph (02) 4916 3904

Implementing Occupational Health & Safety on an Oyster Farm

(Speaker: Rob Moxham)

A key component of the government assistance package to Hawkesbury River farmers has been the removal of QX affected stock from lease areas. A condition of undertaking this work was compliance with NSW Workcover legislation. Rob indicated that the preparation of Safety Check Lists and Safe Working Method Statements were not difficult and largely involved common sense. Rob believed that this was a rewarding process for his business and strongly recommended that other farmers undertake this process.

Further Information:

Workcover NSW - <u>www.workcover.nsw.gov.au</u> Steve McOrrie – DPI. Ph (02) 4916 3921

The Year In Review

(Speaker: Rachel King, NSW Farmers' Association)
Rachel King of NSW Farmers' Association provided an overview of the progress made by the NSW oyster industry in recent years in a number of key areas including the NSW Shellfish Program, water quality, lease security, and raising the industry's image and profile with government and the general public. The challenges for the future were identified as marketing and product definition, environmental protection, as well as continuing

Further Information:

NSW Farmer's Association. Ph (02) 8251 1700

to work to further develop the industry's image.

Government Question & Answer Session

Key Government representatives from *DPI*, *NSW Food Authority*, *Lands* and *State and Regional Development* present at the *Field Days* answered questions raised by the audience.

Most Beautiful Un-opened Oyster Contest

The Most Beautiful Un-opened Oyster Contest was run in conjunction with the Field Days. A special thanks to all the farmers (21) who took the time polish up their favourite oysters for the contest as the quality of oyster entries on both days was excellent.

The oysters were voted on by those present on the day and the winners were presented with and engraved silver plate and a bottle of wine on the day.

The Winners Were

Port Stephens

Stick SRO - Les Wadham (Hawkesbury River)

Single Seed SRO - Andrew & Chris Phillips (Port Stephens)

Pacific Oyster - John Stubbs (Hawkesbury River)

Batemans Bay

Stick SRO - Geoff Hutley (Wapengo Lake)

Single Seed SRO - Gary Rodely (Nelson Lagoon)

Flat Oyster - Audrey Thors (Clyde River)

A notable mention must be given to Bob Drake (Georges River) for his Pacific Oyster Sculpture entry at the Port Stephens *Field Day*. Bob's sculpture received a special "stubby" award for his artistically creative effort.

Trade Shows

In keeping with previous Field Days, trade suppliers were invited to attend and the following is a list of trade suppliers present at the *Field Days*.

Trade Suppliers

Water Quality

Aquasonic Pty Ltd.

McCrakkens Water Services

Remote Environmental Monitoring

Data Acquisition Networks Pty Ltd

Plastic Mesh Products

Melbourne Oyster Supply Pty Ltd

Purple Pig

Extruded Plastic Products

Peter McWilliam

Plastic Farming Infrastructure

Seapa Pty Ltd

Tooltech Pty Ltd

Oyster Grading Machines

Shellquip Pty Ltd



Trade Display Area Port Stephens

Oyster Industry Sustainable Aquaculture Strategy (OISAS) Gets the Nod from Government

On 8 December 2006 OISAS was formally gazetted. The provisions of OISAS take effect from that date. For industry there is a streamlined approval process for new leases in the Green Zone and measures to protect long term water quality through the development approval and Local Environment Plan processes. OISAS and estuary maps can be viewed on the department's web page at www.dpi.nsw.gov.au.

Further Information:

Tim Gippel - DPI. Ph (02) 4916 3823

Tar Immobilisation Approval Extended

Following representations from DPI the *Department of Environment and Conservation* has extended the *Tar Immobilisation Approval (TIA)* for a further 12 months. The *TIA* permits landfill disposal of coal tar treated timber from the oyster industry. In arguing a case for an extension of the *TIA*, DPI was able to point to the significant progress the industry had made in the phase out of coal tar treated timber products by industry and the take up of plastic infrastructure. Information was sourced from Annual Production returns.

Release of Available Oyster Lease Area in Hastings River

Following a number of enquiries from industry in the Hastings River, DPI has identified a number of unleased areas that are suitable for oyster farming under OISAS. A list of the areas under consideration is now available from DPI.

Further Information:

Sheree Wiseman - DPI. Ph (02) 4916 3808

NSW Land Based Sustainable Aquaculture Strategy

The current land based aquaculture strategies (North Coast SAS, Hunter & Central Coast SAS) have been combined into a single NSW State-wide Sustainable Aquaculture Strategy. Relevant government agencies are reviewing a working draft and have undertaken to provide feedback by mid January 2007.

A draft of the Strategy will be released to industry associations for comment in early 2007 with council and community consultation planned for April 2007. In developing the strategy all land based aquaculture policy and permit conditions will be reviewed and updated in consultation with industry in 2007.

Further information:

Graeme Bowley - DPI. Ph (02) 4916 3845.

Ornamental Fish Industry

NSW DPI has been participating in a national review of the ornamental fish trade. A draft implementation plan is being prepared following consultation on a document titled "A strategic approach to the management of ornamental fish in Australia".

The implementation plan will consider the adoption of a national noxious species list across all states and territories; establishment of a scientific/technical working group to conduct assessments of fish on the grey list from the above document; adoption of a regulatory framework and licensing to manage large ornamental fish-breeders and importers in each state and territory; development of control mechanisms for the regulation and management of noxious fish and rare fish (e.g. CITES listed) already in circulation in Australia; and implementation of a national communication strategy to raise awareness in the community and industry about the management, control and regulation of ornamental fish and invertebrates. Further information:

Graeme Bowley - DPI. Ph (02) 4916 3845.

Aquaculture Research.

Aquaculture research is currently undertaken at Port Stephens Fisheries Centre, Grafton Aquaculture Centre and Inland Saline Aquaculture Research Centre (Wakool – owned by Murray Irrigation Limited).

Marine fish research is currently focused on :-

- feed technology, this has resulted in the identification of better diets with substantial fishmeal reduction (~15% compared with ~60% of diet),
- more efficient hatchery production mulloway and yellowtail kingfish,
- stock enhancement (through Recreational Fishing Trust & Victorian Dept Fisheries – Australian bass and mulloway); and
- inland saline aquaculture (through ACIAR and FRDC – mulloway, trout and prawns trialed). The research is now being commercialized with a large trout farm being planned.

Further information:

Stewart Fielder – DPI. Ph (02) 4916 3902.

Grafton Aquaculture Centre is currently focused on:-

- development of a genetic improvement program for farmed silver perch.
- evaluation of the potential for aquaculture on cotton farms – cage culture of silver perch.
- development of a health management strategy for the silver perch aquaculture industry (preparation of final reports and manuals).

Further information:

Stuart Rowland - DPI. Ph (02) 6640 1691

Aquaculture Research Advisory Committee (ARAC)

ARAC will meet 31 January 2007 to consider research and development issues to support the aquaculture industry. ARAC membership consists of Professor Ian White (chairperson), four oyster industry representatives (Tony Troup, Geoff Diemar, Audrey Thors and Dominic Boyton), two Iand based representatives (Ian Charles and Robert McCormack) and a NSW DPI representative Trevor Gibson.

Further information:

Geoff Allan - DPI. Ph (02) 4916 3909

Production report

The production report returns for 2005/2006 have been completed with only 3% of lease based and 2.3% of land based farmers requiring follow-up compliance action. Thank you to those returning forms.

Fees & Charges

In September 2006 the CPI adjustment was made for NSW DPI fees and charges. The latest fee schedule is on the NSW DPI website at :- www.dpi.nsw.gov.au or contact aquaculture administration on (02) 49821232

Chemicals Used in Aquaculture

Action is underway within NSW DPI to ensure that only approved chemicals are used in aquaculture. As part of this process NSW DPI assisted the NSW Silver Perch Growers' Association to submit permit applications to the Australian Pesticides and Veterinary Medicines Authority to cover six commonly used chemicals. NSW DPI has agreed to defer immediate action on certain "low risk" chemicals currently in use provided progress is made with permits (or registration). This does not include malachite green—NSW DPI cannot condone any use of malachite green for food fish production.

Producers and industry associations should be considering what chemicals they use and their options for obtaining minor use permits. The Biological and Chemical Risk Management Unit at Orange DPI can assist in this process.

Further information:

Mark Scott - DPI. Ph (02) 6391 3567

Hatchery Quality Assurance Program (HQAP) Update

In future, hatcheries wishing to partake in stocking programs (e.g. the "dollar for dollar" Native Fish Stocking program) or conservation stocking in NSW, will require accreditation under the HQAP. All hatcheries producing freshwater fish for stocking purposes will be required to reach accreditation status within the next two years.

During March 2006, eleven private hatcheries, the NSW DPI Narrandera Fisheries Centre and the Grafton Aquaculture Centre were visited to introduce operators to the HQAP and help them assess the design and operation of their facilities against the HQAP *Essential Criteria*. The department was appreciative of the time and information provided during the visits.

Finalisation of the HQAP accreditation scheme and commencement of accreditation is expected in mid 2007. <u>Further information</u>:

Tim Gippel – DPI. Ph (02) 4916 3823

Aquaculture Compliance Lease and Farm Inspections NSW DPI officers inspected over 1600 aquaculture leases and aquaculture farms during 2006.

Most aquaculture lease inspections were part of the three yearly inspection program. The overall condition of many leases has improved with an increase in the number of satisfactory leases.

This result can be seen in most estuaries where there is improved lease marking and quantities of old cultivation material have been removed. Farmers are congratulated for their efforts.

A number of farmers have also obtained work plans to extend the time to complete work under an approved timetable. Work plans will continue to be an option for managing extensive clean up work during 2007.

The inspection program also identified a number of current and former farmers who have made limited or minimal effort to return lease area and marking to a satisfactory condition. Attention will continue to be given to this issue during 2007 by fisheries compliance.

The removal of steel star pickets and a decrease in brightly coloured cultivation during 2006 has improved the safety and standard of some leases.

Work has also commenced on the implementation of a three year inspection program for many land based farms, further information and consultation with industry will occur during 2007 on this process.

During 2006 compliance action involved aquaculture permit holders farming land based food and ornamental aquaculture species and marine based lease production and permit holders. The issues included:

- conducting aquaculture without a permit: land based and marine based
- failure to maintain a lease in a tidy condition
- failure to comply with all translocation requirements
- failure to notify significant mortalities

Further information:

Please contact the local District Fisheries Officer

The staff of Aquaculture Management and Research wish you all the best for a prosperous New Year