

A RESEARCH AND DEVELOPMENT BUSINESS PLAN FOR THE AUSTRALIAN BARRAMUNDI FARMERS ASSOCIATION

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**AUSTRALIAN
SEAFOOD
COOPERATIVE
RESEARCH CENTRE**

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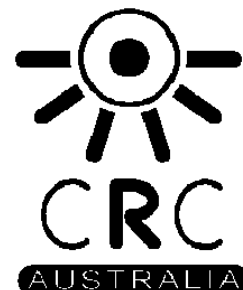
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The Australian Seafood CRC is established and supported under the Australian Government's Cooperative Research Centres Programme. Other investors in the CRC are the Fisheries Research and Development Corporation, Seafood CRC company members, and supporting participants.



The R&D project areas to be implemented, as determined by the ABFA, are shown below in priority order:

1. Animal health
2. Quality accreditation and market access
3. Genetics
4. Study tours and benchmarking
5. Feed performance
6. Water quality and waste treatment

Detailed implementation arrangements for each priority area are provided in the R&D plan.

AUSTRALIAN BARRAMUNDI FARMERS ASSOCIATION

RESEARCH AND DEVELOPMENT BUSINESS PLAN

The ABFA has a detailed strategic plan developed in 2007 proposing many research and development activities. These were reviewed at the Cairns 2009 ½ year workshop attended by members, researchers, policy advisers from government and regulators.

The members of the ABFA have carefully considered the information provided at the workshop and have now set the priorities. These are set out below.

Dr Len Stephens, Jayne Gallagher and Graham Mair from the Seafood Cooperative Research Centre met with the President of the ABFA Dr Ken Chapman, the chair of the R&D Committee Bob Richards and Graham Dalton the Executive officer on 4 May 2009 in Cairns to develop detailed implementation approach.

The plan and proposed implementation pathways are set out below.

THE PRIORITIES IDENTIFIED BY THE ABFA

In order they are:

1. ANIMAL HEALTH
 - 1.1 Improved Streptococcus vaccines
 - 1.2 Improving management of nodavirus
 - 1.3 Improving treatment and prevention of parasites
 - 1.4 Reducing the need for antibiotics.
 - 1.5 Research on the use of ice slurry in harvest.
2. QUALITY ACCREDITATION & MARKET ACCESS
 - 2.1 Build a “Green tick” EMS accreditation system for members.
 - 2.2 Develop an independently driven production reporting and forecasting survey
 - 2.3 Build market recognition of, and promote the quality differences of, our members’ farmed barramundi.
 - 2.4 Seek an objective method of testing for flavour
 - 2.5 Provide an effective genetic test for Australian barramundi
 - 2.6 Bench mark Australian farmed product against imported competitors.
3. IMPROVE THE GENETICS OF AUSTRALIAN FARMED BARRAMUNDI
 - 3.1 Review the genetics scoping study to determine an appropriate course to follow

4. STUDY TOURS – TECHNOLOGY TRANSFER –BENCH MARKING-ON FARM PRACTICES
 - 4.1 Arrange a formal program for members to exchange and develop knowledge about practices in this and other similar aquaculture industries.
5. FEED PERFORMANCE
 - 5.1 Support feed companies' projects aimed at enhancing feed performance
6. WATER QUALITY & WASTE TREATMENT
 - 6.1 Work with the APFA on projects designed to enhance water quality and discharge water quality.

A detailed implementation approach is set out below.

IMPLEMENTING THE PLAN

The ABFA will be proactive in this program. The R&D Business plan will form a vital part of the overall business plan and industry development plans.

IMPORTANTLY THESE ARE THE ABFA PRIORITIES – THEY ARE NOT ANY ONE ELSE'S
NO OTHER ROJECT WILL RECEIVE SUPPORT WITHOUT THE FULL CONSIDERATION
OF THE ABFA R&D COMMITTEE AND EXECUTIVE

The total cost of the proposed projects appears to exceed the R&D resources available to the ABFA. There will need to be some further prioritisation to match projects to available resources.

1.0 Animal Health

1.1 Improved Streptococcus vaccines

1.2 Improving management of noda virus

Action

1. This is outside the CRC program. The R&D committee will consult with the FRDC about how best to encourage further development work in these fields.

1.3 Improving treatment and prevention of parasites

Action

ABFA to confirm the extent of parasite problems including species etc.
Warwick Nash at QDPI to be asked to identify prospects for QDPI, through Ian Anderson, preparing brief review of scale and scope of problem of parasite infestations in Barramundi

farming.

ABFA will consult with Graham Mair about how to proceed.

1. ABFA has asked members to identify in more detail the problems and types of parasites so a research response can be drafted.

1.4 Reducing the need for antibiotics.

Action

Warwick Nash at QDPI to be asked to identify prospects for QDPI, through Ian Anderson, preparing brief review of scale and scope of antibiotic use in Barramundi farming and prospects for reducing the use of antibiotics. ABFA will consult with Graham Mair about how to proceed.

1.5 Research on the use of ice slurry in harvest.

Ice slurry is the preferred method of humane killing. But, there is pressure to cease the use of ice slurry in aquaculture. However, much of this may relate to temperate and cold water species. Barramundi is a tropical species. and ice slurry is considered a humane and effective method of killing at harvest. However, this now needs to be confirmed scientifically.

Action

Alastair Smart, SmartAqua be engaged to undertake a desk top literature review.

He suggests it could also be pragmatic to talk to RSPCA (Australia and UK) and OIE (World Organisation for Animal Health, France) to get some up to date views. A suggested price of \$12,000 to \$16,000 was received from Alastair Smart. An acceptable cost would be closer to \$10,000.

ABFA will draft a short scope outlining what is wanted.

CRC will consult with Paul Hardy Smith.

1. Scope drafted and circulated to industry

2.0 QUALITY STANDARDS, ACCREDITATION & MARKET ACCESS

2.1 Build a “Green tick” EMS accreditation system for members.

Action

We have a proposal from Guy Chester Director EcoSustainAbility to develop an EMS based on the ecotourism industry approach.

We will again approach the Queensland Government seeking funding support . The CRC will be asked to consider assisting at later stage when it is time to develop this as a brand for Australian farmed barramundi. They will also look at proposals to envelope this with a re-vamped barramundi standards document.

The CRC as part of its market development projects on behalf of ABFA will examine the benefits and implementation of an eco-marketing approach.

1. ABFA has again approached Qld gov. departments about funding

2.2 Develop an independently driven production reporting and forecasting survey

Action

ABFA has a formal proposal from KPMG to undertake this project as an independent body. ABFA is seeking FRDC financial assistance to set this project up. This has been approved in principal and a formal application will now be submitted.

1. Proposal has been submitted

2.3 Build market recognition of, and promote the quality differences of, our members' farmed barramundi.

We know that imported farmed Barramundi does not have the eating quality of Australian farmed barramundi. Both flavor and texture qualities are much poorer than the best Australian farmed barramundi. Also, production standards are probably not as good.

We are seeking to reposition Australian Farmed Barramundi as a high value gourmet species that is differentiated from frozen imported product.

Previous work on developing a quality standard for farmed barramundi (funded by ABFA, FRDC and SSA) will form the basis for this repositioning which will also need additional information about

- Customer and consumer perceptions and expectations of Australian Farmed Barramundi (including understanding price points and value of quality marks such as a “green tick”)
- The value chain (including understanding the current distribution and marketing channels and the opportunities to influence purchase decisions)
- Competitive analysis (including an analysis of competitive rivalry, threat of substitutes and the relative power of suppliers and buyers)
- Opportunities for creating new markets and/or new consumers of Australian farmed barramundi

The CRC is suggesting an initial scoping and desktop research stage to cover these.

Following this scoping, a number of activities will be trialed and evaluated for their value to ABFA members in terms of repositioning their product on the domestic market.

Planned Outcomes:

ABFA members will be achieving increased returns through implementing product repositioning strategies in the domestic market for Australian farmed barramundi at both the organization and individual company level.

Objectives

1. At least three barramundi producers using “green tick” quality mark underpinned by robust quality and EMS standards for Australian farmed barramundi
2. At least two new market and/or market segments being accessed by ABFA members using one of the product repositioning strategies
3. At least one ABFA member participating in the CRC retail transformation program
4. At least one ABFA member undertaking ongoing consumer driven product and market development activities

Methods:

1. Undertake a review of the quality standards and update them for use to underpin a “green tick” quality mark, which will also include an EMS. This will include consideration of auditing and certification options. Trial and evaluate the value of the “green tick” and report to ABFA members on its effectiveness as a product differentiation tool
2. Conduct a value chain analysis to understand the current distribution and marketing channels and the opportunities to influence purchasing decisions. Identify opportunities to improve supply chain performance, trial and evaluate these.

3. Undertake market and consumer research to better understand the positioning of Australian farmed barramundi in the domestic market and identify new opportunities for repositioning the product (new markets and/or new consumer segments). Work with at least one ABFA member to develop and trial new product presentations to service new markets.
4. Design, develop, implement and evaluate an ABFA specific project within the CRC Retail Transformation program

Cash Costs and Potential Contributing Participants:

- ABFA
- \$350, 000 over 2 to 3 years

Potential R and D Providers:

- QDPI (product development)
- SSA (quality mark)
- USC (market and consumer research)
- Curtin Uni (value chain analysis)
- CRC communal projects (product composition profiles and omnibus consumer survey)

The CRC is proposing to put the whole project in as a large investment (\$350k over 2 to 3 years) but is seeking advice from the ABFA regarding the scale and scope of what we are talking about.

The plan is to do a pilot version of some of this for presentation at the workshop at the ABFA/APFA conference. This will enable members to discuss the concept with some concrete examples of what such a project can deliver. The initial budget for the pilot is capped at \$20k.

The CRC is proposing also to do one supply chain and one customer study and perhaps a competitor analysis.

The CRC has suggested some research providers - all Qld based as this keeps travel costs down. The CRC advises that there may be opportunities to involve some Post Docs and they have included their proposed post doc in seafood supply chains as a potential service provider (despite being located in Curtin WA).

Action

Work through the workshop at the Conference with Jayne Gallagher.

Deliver a workshop with members to outline the project and commence pilot stage
Work through the R&D budget implications and available resources of the CRC proposal.
ABFA to support the CRC marketing master class
ABFA to support CRC in developing the market survey.

1. ABFA is working with CRC to organise a master class for October in Brisbane.

Related projects

The ABFA now has some very objective standards in place for many other important aspects of quality, including especially residues and pathogens.

We do not have any equivalent bench marks for imported product. We believe ABFA members' product is better – but we cannot demonstrate it as a fact. The ABFA wants to be confident that claims that fresh Australian product is better is in fact well based in science.

The ABFA wishes to undertake a number of studies to look at the objective qualitative differences between imported and Australian product. We are also concerned that imported product poses some bio-security risks for domestic producers.

The ABFA has proposed studies to bench mark imported product for:

- . Residues against the EU test program
- . Human pathogens
- . Strep strains in imported product.

The CRC had said it would cover these benchmarking issues within the market access program, but so far does not appear to have been covered.

Action

1. The CRC has now confirmed the intentions of the CRC to meet the r&d plan requirements of the ABFA for benchmarking against imported product.

2.4 Seek an objective method of testing for flavour

We understand that SARDI has developed objective analytical chemical tests for the “muddy off flavours” that sometimes appears in barramundi.

Managing flavor will be an important part of our “quality tick” program. ABFA is seeking further information on the tests. If the tests appear viable we will be seeking CRC funding for “ground truthing” and to develop a program to implement the testing as part of the ABFA quality standards.

Action

The CRC will seek a desk top review of the status of flavour tests and on this basis a decision will be taken on what further is needed.

1. Proposals are with ABFA for consideration

2.5 Provide and effective genetic test for Australian barramundi

Country of origin labelling is a statutory requirement at point of sale nationally. The NT requires it on cooked product on menus. ABFA is campaigning to have this adopted nationally.

Unfortunately, anecdotal evidence and the quality of some fish on sale suggest that country substitution is occurring.

We need further work on identifying the genetic characteristics of Australian fish as opposed to other Asian fish and to providing a cost effective test. The project is supported by the ABFA and the Northern Territory government.

Action

Commission short stand alone study to review potential of existing genetic markers to discriminate Asian imports from Australian Barramundi (to detect product substitution) to include estimate of efficiency of resolution, approximate costs of analysis and recommendation on how it could be used (who could apply the markers).

Comment on Costs and Scope

At this stage the CRC has suggested a cost of max \$5,000 for a study to see where things stand.

But Dr Dean Jerry from JCU has now provided a view on what is possible and what is not known. He says the Australian populations have been done and many Asian ones, but he is saying that work still needs to be done on fish from the near Australian populations. To

cover the gaps would cost \$52,000. The NT government may be able to assist in this regard and other funding sources may be available, but the cost means this project has to be weighed against other R&D requirements.

The cost of the project is high given the uncertainties that it will be successful in identifying an approach to separating Australian sourced product from imported. The project will depend on how much money the NT Gov is prepared to tip in and what all the other projects we want to fund add up to (i.e. how much money is left in the fund to cover it).

Action

The ABFA will make a final decision on selecting between projects when we have a better menu of costs.

3.0 IMPROVE THE GENETICS OF AUSTRALIAN FARMED BARRAMUNDI

The ABFA genetics scoping study has been presented and needs to be circulated to members.

Following discussion with the CRC the following actions are proposed. The translocation issues of improved stock appears to be an early issue and this needs to be resolved before much more work can be done.

Action

- ABFA to support the CRC genetics master class and provide the names of two hatchery managers to attend.
- ABFA to seek advice on the translocation policies in the States and Territory and determine how restrictive they are. Through the CRC organise a review of current and future translocation policy for Barramundi in QLD and NT and formulate recommendations for scale and scope of translocation risk assessment – estimated cost max \$5,000
- ABFA to invest in a business plan setting out a pathway to commercialisation of a genetics program.

1. Some names have been provided to CRC. Industry asked to nominate others.

4.0 STUDY TOURS – TECHNOLOGY TRANSFER –BENCH MARKING-ON FARM PRACTICES

The ABFA has previously undertaken a bench marking study for members and has undertaken technology transfer visits to other sectors and other States.

This is seen as an extremely valuable and practical way of increasing the productivity of the industry.

Three study tours will be promoted.

Action

It is agreed that the CRC will support

- Developing a study tour program setting out what is to be learned and where
- Putting together the first study tour and supporting the appointment of a supervisor for that tour

ABFA will seek to access to relevant programs already in the CRC program:

- individual bursaries
- programs on marketing and value adding
- entrepreneurship program
- seafood marketing course

5.0 FEED PERFORMANCE

Our sponsoring feed companies have a ongoing research projects looking at improving feed utilisation. The ABFA will support the feed companies in this research approach.

Action

The ABFA will meet with the feed companies to fill details of the r&d to be supported.

6.0 WATER QUALITY & WASTE TREATMENT

Discharge water quality and water treatment remains an issue for all sectors of the industry – albeit the problems are different for re-circulation compared with salt water production.

In this regard, there are many similarities to the problems facing the farmed prawn industry.

Action

The ABFA will consult with the APFA with a view to developing joint r&d projects.

The CRC will advise they are open to applications