

SEARCH CRITERIA

Model	Model B: Programmed learning Model
Industry	Marron Farming
Focus/Level	Industry
Delivery Mode of Learning	Action Learning, Adult Learning
Outcomes	Technical training, Business development
Special Interest Groups	Other

1. PROJECT TITLE:

Marron Roadshow

Reviewer: Fionnuala Frost and Debra Pearce

2. FUNDERS:

Government of Western Australia through the Department of Fisheries

3. PROVIDERS:

Department of Fisheries – Aquaculture Program. The Department of Fisheries issues licences for marron aquaculture, and has an extension function in contributing to the development of the industry.

Mandy Dearden, Aquaculture Development Officer, Telephone (08) 9841 7766, email mdearden@fish.wa.gov.au

4. INDUSTRY/ISSUE/GEOGRAPHY

The size of the marron (freshwater crustacea) farming industry in Western Australia has grown in recent years. Good market prospects and relatively well-known production technologies are believed to have contributed to an increase in the number of aquaculture license holders over the last decade. Additionally, the majority of aquaculture enquiries to Department officers relate to marron farming. Given this, the Department of Fisheries has invested heavily in research and extension programs related to marron production since the 1970s.

5. PROJECT CONTEXT

The Department of Fisheries estimates that approximately 80 per cent of licensed marron farms in Western Australia are not commercial. Best practice marron production systems yield 2000 – 2500 kg/ha/year, while the average for the State is 357/kg/year. These figures translate to gross incomes of \$40-50,000/ha compared to \$7142/ha per year. The Department's Aquaculture Program felt that the traditional, broad-based technology transfer mechanism for extension may not have been the most effective way to encourage industry development.

Further, a target of \$200 million per annum for aquaculture exports from Western Australia by 2010 has been set by the Department of Fisheries. Of this, \$10 million per annum is expected to come from freshwater crayfish (marron). Current marron aquaculture production is stagnant at around \$1 million per year, hence effective extension efforts are required if the production target is to be met.

Given this information, the Department of Fisheries identified two markets for extension programs aimed at increasing total production – existing and prospective

growers. It is believed that new large-scale developments will produce the majority of the industry's future value. A focus on encouraging sound and professional industry investment was thus required. The Department approached this with a series of workshops aimed at providing good information and advice to potential new entrants to the industry which would also, if successful, prevent resource wastage associated with unprepared or under-budgeted entrance to marron farming.

6. PROJECT NICHE

The niche for the project related to the level of interest in marron farming received by the Department of Fisheries Aquaculture Development Officers.

7. PHILOSOPHY/APPROACH

The extension officers involved in the project adopted an approach which aimed to minimize the investment of limited extension resources in "non-performers" or under-performers. The decision to focus on potential new entrants to the industry was based upon the perception that encouraging best practice enterprise establishment prior to commencement provided significant opportunities for industry growth. (Further justification of the rationale for targeting future producers can be obtained from the project report, available from Aquaculture Development Officer Mandy Dearden.)

Aquaculture Development Officers thus developed a strategic extension program based on the concept of maximising "Return on Investment".

This concept provided a means of evaluating the success of the program by using a quantitative method for measuring the potential outcomes. Using available information and reasonable estimates based on sound knowledge, the officers were able to estimate the economic benefits of the program as one of the measures of outcomes.

8. RESOURCES, MANAGEMENT AND STAFFING STRUCTURES

To date (March 2003), approximately \$20,000 has been spent by the Department of Fisheries in the development and implementation of the series of workshops, including officer time.

We need to mention Farmbis and Challenger TAFE.

FarmBis sponsored the roadshow providing a 75% rebate to eligible primary producers. The workshop was aligned with the National Seafood Training Standard 503 and as such was delivered in conjunction with the Registered Training Provider Challenger TAFE Fremantle.

9. PROCESS/METHODS USED

The workshops conducted by the Department of Fisheries aimed to "facilitate new entrants through the key steps required to assess the feasibility of marron aquaculture enterprise."

The purpose of the workshop, aligned with the National Seafood Training Standard 503 "Establishing an Aquaculture Enterprise", was to give participants the decision making tools they needed to determine whether or not marron aquaculture is for them. Key topics covered were site selection, water quality and quantity, business planning, marketing and financial feasibility. The presentation team was comprised of the Aquaculture Development Officers who delivered the site selection and water quality and quantity sections along with a business consultant who delivered the business planning, marketing and feasibility sections.

I think we need to highlight the extensive use of evaluation and assessment of the client expectations and needs.

To bring rigor to the workshop process three levels of evaluation were undertaken pre-workshop, post workshop and follow up evaluation. The pre and post workshop were designed to measure participants expectations and information needs and knowledge.

The tool used for the pre workshop evaluation was a learning expectations survey combined with a “radar chart” to assist participants assess the gaps in their knowledge specific to marron aquaculture.

An ORID (observation, reflection, interpretation and decisional) discussion was held at the end of each workshop to take participants through the action learning cycle¹ and encourage them to reflect on the information they received, interpret what it means to them and make a decision on the next steps to take.

Two weeks after the workshops each participant received a written survey in the mail. The purpose of this was to ascertain whether in hindsight the workshop was valuable, if information was being shared and if specific action were being taken.

The workshop process is summarized by the Department of Fisheries as follows:

“The project team decided that a two-part workshop on assessing the feasibility of marron farming would be the most effective way of servicing the new entrants sector. The aim of the workshop was to ensure that all potential new marron farmer entrants could investigate production, market and financial feasibility of marron aquaculture with the assistance of the workshop team.

To facilitate the ‘action planning and implementation’ process the workshop provided a learner resource file with a decision support system to assist participants to ask the questions they needed to answer to decide whether or not a commercial marron enterprise suited them. As such the intended outcome for participants was for them to be able to determine whether they had the available resources (time, money, land, water) to proceed to assessing the commercial viability of the enterprise and where to find information and services that can support this decision. In addition, the learner resource file system is designed to assist participants in sharing the information and the ‘action planning and implementation’ process with their peers, as social research has indicated that farmers learn best from other farmers (FRDC 2002), as such provide another mechanism to assist the Department in getting it extension messages across.

The entire workshop process: the agenda, presentations, lesson plans, worksheets and learning resources have been catalogued. This should allow any future events to be conducted without considerable effort in planning and preparation.”

(Machin et al, 2003, p11).

¹ The action learning cycle refers to the model put forward by Kolb who stresses the need for the cycle to be completed to maximise the learning experience. The cycle involves four steps: plan, act, reflect and conclude.

10. IMPACTS TO DATE:

The Department of Fisheries reports that:

“The three workshops were held in December 2002 and 71 participants attended. 35 participants indicated that they would not proceed with marron production, and 3 will be implementing a total of 19 ha of marron ponds, which could result in a return of investment of \$1,016,266 over the next three years. In addition, a post workshop survey indicated that 100% of participants would recommend the workshop to others.” (Machin et al, 2003, p4).

The report concluded:

“The three workshops were a success with the participants stating that their expectations were met and that the workshop had resulted in them increasing their knowledge and taking specific actions. Overall the investment in the workshops of \$20,974 has resulted in a direct ROI [Return on Department of Fisheries Investment] of \$287,086. In addition, three participants indicated that they hoped to implement a total of 19 ha of marron ponds. If achieved, the workshop series has assisted in achieving 200% of annual marron sector growth required to meet the industry target of 200mt per annum.” (Machin et al, 2003, p14)

11. EFFECTIVENESS:

Potentially very high

The level of effectiveness of the workshops is potentially very high, due largely to the extensive thought and conceptual analysis put into the development of the program. Significant consideration given to target audiences, appropriate extension and methods for evaluating participation and effectiveness provides a basis upon which good outcomes could be achieved.

A true measure of the effectiveness of the program will be identifiable if workshop participants transfer their learnings into best practice marron farms.

The number of participants making an informed choice not to enter the industry also indicates sound extension processes. By providing relevant and useful decision-making advice and tools to the full suite of potential growers, the Department of Fisheries have enabled those who may not be able to, or willing to, invest the required time, energy and resources to achieving best practice, to make a considered decision not to become further involved.

12. PROJECT DOCUMENTATION AVAILABLE:

Extensive components of this case study were taken directly from the following:

Machin, D. Dearden, M. and Lacey, P. (March 2003) Marron Roadshow Preliminary Report (In Preparation). Department of Fisheries, Government of Western Australia.

The assistance of the Department of Fisheries in providing this research is appreciated.

13. ISSUES:**14. COMMENTS/CONCLUSIONS:**

The Marron Roadshow appears to have been well considered in relation to extension techniques, knowledge of the target audience, and recognition of the intent of the extension activity. As this project has only occurred in recent months, the full degree of outcomes will not be known for some time. Further workshops are planned which build on the information presented at initial roadshow series. “The purpose of the final workshop is to encourage each participant to complete their feasibility studies

and if they prove positive, commence assessing the enterprise's viability with their accountant or business advisor." (Machin et al, 2003, p15).

15. REVIEW METHODS:

Review of relevant documentation and discussion with Aquaculture Development Officer, Ms Mandy Dearden. Input from the Department of Fisheries and comments on early drafts are appreciated.

Adhikarya, R (1997) Implementing Strategic Extension Campaigns. In Chapter 10 of Improving Agricultural Extension – A Reference Manual. Ed. B Swanson, R.P. Bentz & A.J. Sofranko. FAO Rome.

16. REFERENCE:

Kolb, D.A. (1984) Experiential Learning. From Understanding Adult Learning source notes, AgWA NHT training, Yanchep 26-28 May 1998.