

Recent development in selected Pacific and Indian Ocean black pearl projects

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Black pearl farming: a brief overview

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The good news

There is considerable good news in the farming of the black pearl oyster, *P. margaritifera*. Ten years ago, black pearl farming was almost exclusively in the domain of French Polynesia and the Cook Islands. Now, however, research projects are sprouting up throughout the Pacific Ocean and even into the Indian Ocean in Western Australia. Such places as the Solomon Islands, Tonga and the Federated States of Micronesia are pushing ahead with commercial farming and witnessing some successes.

And why not? Pearls have been identified by many economists as the ideal crop for small island nations, whose major economic activity has been traditional agriculture — copra or a variety of vegetables. As this paper will reveal, funding for pearl projects involving basic research for such necessities as a hatchery, and the training of the indigenous people, appears to be plentiful. Both American and Australian agencies are now heavily involved in this activity in the Pacific. Whereas pearl farming was once confined to those nations with the ability to capture spat in lagoons, French Polynesia being the prime example, the development of hatchery techniques has opened the door to pearl farming almost anywhere where there is clean water and a minimum of turbidity.

The bad news

But there is considerable bad news, too. For the most part, 'a black pearl, is a black pearl, is a black pearl.' Some experts might be able to tell the difference between a pearl that has been produced in the Cook Islands and a pearl that has been produced in Tahiti, but the buying public can not tell one from the other, and doesn't particularly concern itself with the origin of the pearl. This presents a dangerous marketing situation for a beginning nation, as prices will be dominated by the major player, and that major player is French Polynesia — the proverbial '500-pound gorilla in the middle of the living room.'

The Tahiti experience

By all accounts, the black pearl industry in Tahiti is in turmoil, due to vast production from 'industrialised' farms, many with an attitude that: 'The more we produce, the more quality we will produce.' There appears to have been little concern for the effects of one's production on the market as a whole. The bright spot has been a highly effective government marketing campaign, which has most fortunately resulted in the absorption of much product. But, unfortunately, high production has outpaced marketing efforts, resulting in too much product on the market and a consequent lowering

of prices. The timing couldn't have been worse: at the moment when the industry was managing to convince the world that black pearls were a rare treasure, they suddenly emerged with such plentitude that swapmeet sellers and television hawkers were selling a low-priced product that even the most modest income could afford.

Fortunately, the very quality product seems to be holding its own, and this is the way the industry now appears to be turning. French Polynesia has taken steps to put more 'quality' than 'quantity' in its future by imposing quotas, encouraging farmers to leave pearls in the water longer, and so forth.

Lessons learned

What does this mean for the many incipient black pearl farmers scattered across the vast ocean? The first lesson will be that they must be extremely mindful of events in Tahiti (and, at present, it is the author's belief that not many of these new farmers are aware of that situation). Tahiti's low prices will most assuredly mean low prices for everyone.

The second lesson will be that all attempts must be made to make their product unique — through the development of colours, for example, and, above all, an emphasis on quality.

Oddly enough, as Tahiti turns back to small farms to cut costs, it may find itself in the position the industry was in some two decades ago: dominated by family members who are able to devote more

care to each harvest. This is precisely where the beginning farms in other nations are: using family members, devoting much care to product.

And where Tahiti has been careless about the environment, pushing the limits of many lagoons, the new black pearl farmers must be aware that too much product could be disastrous. A major advantage that they have is clean waters. This is an advantage that must not be squandered.

The future

So, what is the future of black pearl farming in the Pacific? At the moment, it is very much in a transition stage. The 'old player', Tahiti, is falling, and the new players are wondering what is going on. It may be some years before things are sorted out. Above all, one thing will remain true: any attempts at rapid pearl farming development will result in an even further lowering of prices, possible pollution, a severe image problem for black pearls and, perhaps worst of all, a dampening of enthusiasm for an industry that could still make a strong contribution to the economies of small Pacific nations.

The following abstracts present some detail on black pearl projects in the Pacific/Indian Ocean region. Perhaps most useful are the contact numbers of the principal researchers and farm managers. The author would like to encourage a dialogue that will, hopefully, involve both conference participants and these farmers and researchers.

Abstracts

Production of silver-nacred 'saibo-oysters' of the silver- or goldlip pearl oyster *Pinctada maxima* in Indonesia

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The production of highly valued silver-coloured South Sea pearls is achieved by inserting a spherical nucleus and a piece of mantle tissue, the 'saibo' from a silver-nacred silver- or goldlip pearl oyster (*Pinctada maxima*), into the gonad of a recipient pearl oyster. Silver pearl production thus depends on a regular supply of silver-nacred *P. maxima*. In Indonesia, however, *P. maxima* predominantly have a yellow to gold-coloured nacre, and silver-nacred specimens are extremely rare. A sufficient supply of silver saibo to produce silver pearls therefore presents a continuous problem to *P. maxima* farms in Indonesia.

Consequently, at our Indonesian pearl oyster farm at Waigeo Island in Irian Jaya, we have implemented a strategy to ensure a regular and sufficient supply of silver saibo-oysters. There are two aspects to the strategy. First, we produce larvae using wild and hatchery broodstock specifically selected for their silver-nacre. Up to two such runs are attempted per hatchery season. Secondly, oysters resulting from other hatchery runs are examined after approximately 20 to 24 months of age and, if found to be silver-nacred, are put aside for use as a saibo-oyster. Data on the silver-hatchery runs and incidence of silver nacre in wild and hatchery-produced *P. maxima* are presented, and the implications for pearl oyster culture in Indonesia are discussed.