

Milkfish hatchery-reared fry as good as wild-caught say Panay fishfarmers

By **MB Surtida**

AQD's collaboration with the private sector is an ongoing research activity in line with its mandate to transfer aquaculture technology. For milkfish, the adopt-a-milkfish-broodstock scheme was launched in 1993 to enable the private sector to gain experience in maintaining breeders for commercial applications in their own facilities. An offshoot of this scheme is the sale of milkfish fry to fishfarmers with the agreement that data regarding the performance of the fry be made available to AQD researchers. Such collaborations have been made with farmers in Panay (west central Philippines). Tom Hautea Jr, Pedro Padlan, and Julieta Gaitan all work with Dr. Arnil Emata, AQD researcher in milkfish.

The Hautea family has been raising milkfish for at least five decades. Using the traditional extensive method, business has been good. Business has been handed down from father to son, and now Tom Jr. manages three ponds in Anilao and Dumangas in Iloilo and Kalibo in Aklan.

In some of his ponds from 1994-1996, Tom has been using hatchery-produced milkfish fry from AQD, partly because he wants to get around the problem of milkfish fry seasonality from the wild and partly to satisfy his curiosity. He had also wanted to find out whether wild-caught fry are more reliable than hatchery-reared ones.

In 1994, he purchased 66,000 pieces of milkfish fry reared from eggs

obtained from the natural spawning of cage and tank-reared broodstock from AQD. He stocked them in his ponds and found that the fry grew as well as the wild-caught ones. He then bought 850,000 in 1995 and 900,000 in 1996. Mr. Hautea reported that on the average, he produced 750 kilograms of milkfish per ha at a stocking density of 2,000-3,000 per ha on extensive grow-out culture. The milkfish harvested were 2-5 pieces per kilo. Survival was 50 to 90%.

"Each year, I see improvement in my production from hatchery-reared fry. There's really no basis for the prejudice on hatchery-reared fry except perhaps the abnormalities. But these are manageable. They were 15, 5, and 1% for each year that I raised them," says Mr. Hautea.

He favors extensive culture. "The traditional way is much better because production input is much lower, thus, we are assured of a bigger marginal profit since milkfish market prices are vulnerable to many factors."

Similarly, Mr. Padlan has a milkfish pond in Barotac Nuevo, Iloilo. He bought hatchery reared milkfish fry from AQD in 1994. Since then, he has been using hatchery-bred fry even though his experience with wild fry dates back to 1958. "There is no difference between hatchery-reared or wild-caught fry. But

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I. Tendencia



Hautea harvested his milkfish crop in Dumangas last March.

the last batch that I got did not grow well. I attribute this to lack of proper nutrition and care in the nursery stage (until day 30)." To Mr. Padlan, it is not a question of whether they are hatchery-reared or wild-caught.

Abnormalities do not pose a problem. "I still make a healthy profit despite abnormalities. In our ponds, the outer covering of the gills are torn, but these are minimal," says Mr. Padlan.

Mrs. Gaitan has a different story. Since the 70's, she had been farming milkfish in her 1.5 hectare pond in Igang, Guimaras Island. She has been using hatchery-reared fry and has no cause for complaint. "I have tried wild fry when I couldn't buy from AQD in 1995 (perhaps because my needs are small-scale?) but I reverted to hatchery-bred even if they are not from AQD. It isn't the performance of the wild fry. In both kinds, I made profits. They both perform equally. But I'm just not used to buying fry from traders along the coast," attests Mrs. Gaitan.

One problem is what she calls *tuko*, an abnormality when the head of the milkfish grows disproportionately bigger than the body. It is minimal but it occurs. She thinks it is caused by poor nutrition or lack of feeds. "We feed with breadcrumbs when we notice that the natural food is not as abundant during the last few weeks of culture," says Mrs. Gaitan.

These testimonies were confirmed by a recent study conducted by AQD Associate Scientist Neila Sumagaysay and colleagues. Hatchery and wild milkfish fry were grown separately in nursery ponds and transferred to rearing ponds (stocking density - 3,000 per ha). The results suggest that grow-out production of hatchery-reared fry is comparable to the wild caught as long as the abnormal fish is kept to a minimum (<30%). The researchers recommend that milkfish fry should be reared in nursery ponds for at least a month to lower the incidence of abnormality in grow-out ponds.

AQD holds techno-transfer and commercialization workshop

By **ETAldon**

To support its present priorities on technology verification and technology packaging, AQD held a training workshop on technology transfer and commercialization for its staff and cooperators. The training workshop was conducted by the Rural-based Enterprise Foundation Inc. (REDFi) based in Los Baños, Laguna on April 24-26 and May 14-17, 1997.

"If we are to successfully convince farmers of the profitability of our technologies, we must use the participative system and processes that require the integration of sectoral services," says AQD Chief Dr. Rolando Platon. "We must also integrate environmental management as part of technology commercialization."

The training workshop aims to (1) introduce the rural-based enterprise development (RED) process in developing an integrated technology transfer program and its accompanying tools - Quick Resource Appraisal (QRA, a gap identification tool), Risk Management Process (RMP, a decision making or planning tool), and Backward Resource Inventory System (BRIS, a tool for generating basic assumptions for business planning and packaging); (2) develop a localized network of multi-disciplinary cohesive teams that can provide the necessary technical and management interventions; (3) provide for a sustained intervention system to maintain the gains in implemented integrated programs; and; (4) enhance inter-agency and multi-level cooperation through the facilitative synergism of group dynamics inherent in the RED process.

The RED process is a holistic and systematic approach to enterprise

building and integrated program development. It is anchored on the principles of local institution building, the integration of resources and capabilities, and the facilitative strategies of sustained intervention system. The developmental process being participative, the project beneficiaries are an integral part of the developmental process. The RED process recognizes the inherent value of incorporating local knowledge into the development perspective and resolution of problems is taken as a sound strategic developmental imperative.

The central focus of the RED process is the internalization of the team delivery system which is the key strategy for the sustained intervention in the countryside.

The training-workshop was highlighted by a field trip to Bingawan and Guimbal in Iloilo. The participants were made to gather information based on actual interviews and perceptions about the project in the locality. The tour groups then processed the information they gathered using the three tools - QRA, RMP and BRIS and came up with an integrated development program using the following components: program planning and preparation, program packaging and validation, and program implementation.

AQD's Training and Information Head Rene Agbayani led the core group in processing the Phase I output and presented a draft proposal of an integrated program on technology transfer and commercialization. Its implications on AQD's program were considered.

Phase II focused on entrepreneur building based on the QRAs and RMPs.