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PROFILE OF SUCCESS

The Jamandre *bangus* hatchery

By **NJ Dagoon**

The business started in the early 1970s when the Iloilo City family patriarch Engr. Tirso Jamandre Jr, an industrial engineer by practice, became an aquaculture engineering consultant for the UNDP-FAO South China Sea project. With the experience gained, he decided to set up a prawn hatchery in Lapuz, along the Iloilo River. Being successful in growing different species on a pilot scale, he closed down the hatchery in the area and set up a bigger one in Oton in 1981.

After his unexpected death in 1982, the Jamandre family in 1985 went into a joint venture with a consulting company Aquatic Farms Ltd. Together, they formed Jamandre Hatcheries, Inc. with Stella Aileen Jamandre, one of the daughters, becoming president of the company. While her mother, sister and brother have remained in the company's Board of Directors, Aileen who has a degree in marine biology is the one in direct control of the business. Their foreign partners have also left the daily operations of the business in Aileen's hands, though they continue to serve on the Board.

An all-Filipino staff totaling 40 now man the company with each hatchery operation having a manager. A few have a formal knowledge of fisheries, while most have some learning gained from on-the-job experience, training, and interest.

Being one of the pioneers in the prawn aquaculture business, Jamandre Hatcheries is reputed to have one of the highest average survival rates (about 90%) in the locality. "I think we have a technical advantage. We invest more. Hopefully, it pays off, but it costs to do it," Aileen remarked.

About six years ago, the company started the shift to milkfish breeding, after having served as a cooperator of a successful SEAFDEC/AQD-conducted *bangus* hatchery trial run in



The Jamandre milkfish hatchery in San Joaquin, Iloilo. CEO Stella Aileen Jamandre (left) says that the milkfish hatchery business will pick up soon.

1992. Their 200 broodstock are a combination of eggs sourced from AQD and grown to maturity, along with other milkfish from brother Tirso III's ponds. The broodstock are fed with a diet based on the AQD formulation.

Today, one of the company's four operations is on *bangus*. Larvae are reared in 10-ton tanks in their milkfish hatchery (converted from prawn) located at Crossing Dapuyan in the town of San Joaquin, Iloilo. The milkfish larvae are fed mostly live food, algae and *Brachionus*, and are stocked at a density of about 100 per liter.

The hatchery facilities are part of the Department of Science and Technology / United Nations Development Programme / Gainex project formally known as Milkfish Broodstock Development and Fry Production in Ponds and Tanks. The project is coordinated by the Philippine Council for Aquatic and Marine Research and Development, and has UP-Visayas as its consultant.

The project started in August 1997 and will end July 2000.

The five-year-old *bangus* breeders only started to spawn in late November-December of last year. Since March to September is spawning season for the species, they are expecting full-scale production this year. They usually sell 20-day-old fry lower than the prevailing hatchery market price and those caught from the wild. Their price ranges from as low as 20 centavos to as high as one peso apiece.

Aileen said, "We are able to dispose all of them (fry). Abnormalities are less than one percent in our case. We believe in natural selection and that only the ones without deformities survive." She roughly places survival rate at about 50%. The hatchery gives an allowance of extra fry to cover for incidence of de-

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formity or mortality.

Since the Jamandre's *bangus* hatchery is still a fledgling enterprise, accurate production data such as rates of hatching and survival are not yet available. The company has not yet even recovered their initial investment on the hatchery for more than five years already. But the family business CEO foresees that the venture will be picking up soon. "(Hatchery-bred milkfish fry) are becoming more acceptable because a lot of (them) came from the one before (referring to the AQD trial run), and they (now, broodstock) have performed very well," noted Aileen. "Even the milkfish grow-out technology is something that AQD has proven as early as 10 years back. But the reason it has not taken off," she laments, "is the government's lack of support. (Even now,) the situation has not changed much, but that has not stopped us."

Can she share some secrets of doing well in the aquaculture



This marker at the hatchery entrance notes the assistance extended by the Philippine government to private investors like Jamandre

business? "Like in any business I guess, perseverance, belief in what you're doing, integrity, honesty with the people you work with and with your clients, and attention to detail (in the hatchery) are important," she stressed.

Will they go beyond the hatchery business in the near or distant future? "We're pretty much a hatchery business," Aileen said. "With regards to other species, perhaps—I'm very interested in tilapia."

Concerning the future of their *bangus* hatchery business, the company president said that they plan to become a more efficient and stable enterprise. "I would also like to see a higher percentage of utilization of our hatcheries for *bangus* operations," she remarked.

Her advise for interested prospective hatchery operators? "The hatchery is very much dependent on the way you want to run it. You reap what you sow; you invest more, you gain more...but I don't think it is simply that we spend much, and that anybody who spends this much, can. Actually, there are a lot of facilities still not being operated; so if you want to start a backyard operation, you may rent one of those."

"Prospects are very good," she stressed. "I think that people who are really decided should do it. Like any other business, there are obstacles that could be overcome."

"But in anything that we do, I think that the most important thing to do is God's will. No matter how strong your financial judgment is, but if (the business) is not his will for you, (you won't succeed). It is better to do the right things at the right time, because that's where he wants you to be," she concludes.

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TECHNOLOGY UPDATE

High-density milkfish sea cage farming prospers

Thirty-three tons of milkfish per ha may be cultured in 115 days inside marine pens and cages. The promising technology is a result of tests conducted by the Department of Agriculture in the coastal provinces of Pangasinan and La Union. Already, fishpens have rapidly proliferated in central Luzon.

"Production from a 6-m deep 1,000 m² cage was 5.7 tons of milkfish after 138 days at 94% survival and feed conversion ratio of 1.77. Return-on-investment was about 45%," said aquaculturist Arlene de la Vega of a Batangas project which was based on the above technique, though modified to suit local conditions.

The basic design of these confining structures is described by de Vega as follows. "Fishpens are square or rectangular netwalled structures using bamboo or wooden poles and polyethylene nets. Sizes range from 500 m² (25 m x 20 m) to 1 ha (100 m x 100 m).

"Floating cages are square or rectangular cages made of

polythelene netting attached to wooden bamboo or GI pipe frames and are kept afloat by bamboo, styrofoam or plastic drum. Concrete weights attach or anchor the corners of the floating cages to the bottom. Sizes range from 27 m³ (3 x 3 x 3m) to 1,800 m³ (15 x 20 x 6m).

More sophisticated designs (stationary cages, offshore cages) have been briefly described by de Vega in the previous issue of this newsletter (October 1998).

Fish pens may be stocked at 5-20 pcs per m². Floating and stationary cages, and offshore cages are stocked at 10-30 per m³ and 35-100 per m³, respectively. Monthly production in Pangasinan during peak operations is 3,000 tons.

It is best to develop an efficient management strategy for feeding, and perhaps, to employ automatic feeders, to improve the feed conversion ratio (FCR) from 3.0-4.0 to 1.8-2.0.

Farming milkfish in the sea has a considerably higher productivity at a lower capital cost (at least thrice more fish biomass for about the same investment in facilities) than land-based aquaculture. -- NJD