

GIANT CATFISH HYBRIDS HIT THE MARKET

by Jorgen G. Jensen

Commercial production of a Giant Catfish hybrid has been developed through private entrepreneurship at a farm in Nakhon Sa wan, and the culture is spreading due to good profits. The real Giant would do even better, but some problems have still to be solved. Catch and Culture visited the farm.

The Province of Nakhon Sawan, some 250 km north of Bangkok, where the rivers Nan and Ping meet to form the Chao Phraya River, is packed with fish farms raising *Pangasius*, *Puntius*, *Clarias* hybrids and Indian and Chinese carps. One of them, the Jerdnaphaphan Farm, has developed the first ever commercial scale culture of a hybrid of the Giant Catfish (*Pangasianodon gigas*) and the River Catfish, Pia Sawai (*P. hypophthalmus*), which is raised in earthen ponds on the 500 rai (80 ha) farm. The technology used shows the high level of professional skills found among Thai fish farmers.

Breeding with Iced Sperm of Giant Catfish

Sperm of Giant Catfish, caught during the annual fishing campaign at Chiang Khong, is transported iced to the farm where it is used within 7 days to fertilize eggs of *Pangasianodon hypophthalmus*. The fertilization rate is high, and the fry is fed moina (zooplankton) during the first ten days after hatching. The feed is then switched to pellets as those used for raising other species, and after 45 days it can grow on the usual feed mixture produced from rice byproducts, cassava, etc.

The hybrid, named "Big Sawai", or just "Big Y", reaches 2 kg during the first year. Some farmers in the area have even succeeded in raising it to 4 kg in one year. The local market price is 20 baht/kg (0.80 USD/kg), or the same as for *Tilapia* and *C/arias* hybrids. But it grows quicker, and the production costs are lower, and many farmers in the area are now considering to drop the *C/arias* hybrids and switch to Big Y. Khun Teerachai, who owns the farm, sells fry and fingerlings to anybody who wants to buy, and around 20 large fish farms in Nakhon Sawan and Suphanburi Provinces have already taken up the culture of Big Y.



A real Giant Catfish of 18-20 kg is fished out of the freshwater tank at the hatchery

Giant Catfish Farming: Better Business But Still No Broodstock

Culture of Giant Catfish is an even better business. 10,000 of them, originating from the Giant Catfish Programme of the Department of Fisheries, are kept at the farm for breeding experiments and for raising and selling. The cultured Giant Catfish reaches 18-20 kg over 4 years and sells for 130 baht/kg {5 USD/kg). It is fed the same as *Tilapia*, fetching only 20 baht/kg, and the food conversion rate is better. Before selling, the Giant Catfish is kept for one week in a tank with clean water in order to rid it of any mud flavour. It is very popular in the area and among tourists. A price of 180 baht {7 USD) is charged for a single slice of fried Giant Catfish at nearby hotels and restaurants. It would undoubtedly become a big business if one single problem was solved: development of a broodstock. It has still not been possible to breed Giant Catfish raised in captivity.

Big Y: A Hybrid That Can Breed

Broodstock development is not the problem for the Big y hybrid. Rather surprisingly, and unlike most hybrids, the Big y can be used for interbreeding when only one year old, after hormone injection and stripping, and it is done on a large scale at the farm. The hybrid also breeds well with both of the originators, the Pia Sawai and the Giant Catfish. A batch of 75% Giant Catfish is being raised in tanks at the farm as an experiment. The ability to breed also means, at least in theory, that escaped hybrids may be able to mix with the natural stocks, and change their genes.



A Giant Catfish/Pia Sawai hybrid – a Big Y – is being inspected.

10,000 Hybrids Escaped To Nature

And they do not escape only in theory. Flooding is a threat for all fish farms in the area, and problems may arise 2-3 times each year. In 1996 one big flood caused the escape from the farm of around one million fingerlings. 100,000 of them were the Giant Catfish/Pla Sawai hybrid. But they escaped to the Chao Phraya Basin, not to the Mekong Basin, where the dwindling population of the Giant Catfish remain. But some time in the future, the culture technique may cross the watershed between the two Basins and make the mixture in nature possible. What may be the consequences can only be speculated, but it should give rise to some concern.