

## CURRENT SCENARIO OF FISH HATCHERY IN TOCANTINS STATE, BRAZIL

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Most of the Tocantins State agriculture production is based on soybeans and cattle, however it does not reach the same productivity of other Brazilian states of Brazil, which have tradition on these production systems. In this context, fishculture emerges as a profitable alternative in this state, due to its great freshwater availability, suitable annual mean and amplitude temperatures, native fish species diversity and strategic location in the country. Nowadays, Tocantins State dominates the entire commodity chain in freshwater aquaculture of fishes, from reproduction to processing phases. With a perspective of economic growth in this field, a production increase of young forms will be certainly demanded, and consequently, new technologies for reproduction, larviculture and fingerling culture will be necessary to be applied. In this scenario, we carried out a characterization of the present situation of fingerling production in the Tocantins State. For such case, information was collected after visiting fish hatcheries of the state.

The fish hatcheries are located especially on central region of the state, but they are also present in the North and Southeast regions. The most reared order and species are Characiformes: *Colossoma macropomum* “Tambaqui”, *Piaractus brachypomus* “Caranha” and the hybrids “Tambatinga” (female *C. macropomum* x male *P. brachypomus*) and “Tambacu” (female *C. macropomum* x male *P. mesopotamicus*). Among the Siluriformes order, the hybrid of “Pintado da Amazônia” also called “Jundiara” (female *Pseudoplatystoma fasciatum* x male *Leiarius marmoratus*) is also breed. Belonging to other orders, the *Brycon amazonicus* “Matrinxã” and the *Leporinus macrocephalus* “Piau” are detached. In general, the proprietaries visited keep a considerable broodstock when compared to the real necessity of utilization by each reproductive cycle. A differential nutritional treatment of breeders was not observed in any of the farms visited. Also, none of them use physical markers in order to ensure a directional mating of desired breeders. The artificial induction is performed using pituitary extract of carp with stripping eggs, with the exception of *L. macrocephalus*. The eggs are kept in conic incubators, in general, until the end of yolk absorption. Then, the post larvae are transported to the outside ponds, previously fertilized for production of natural food. Larvae are kept in these ponds and treated with artificial food until they reach commercialization size. The commerce occurs still in larvae size for bigger producers and fingerlings (1 to 5 cm) for small and medium producers. The transportation occurs in polyethylene bags with supply of oxygen and salt. In general, commercialization of fish hatchery extends to other Brazilian states such as Pará, Goiás, Distrito Federal and Mato Grosso do Sul.

In face to the observed facts, we consider that there is a real necessity to improve the application of the already available hatchery technologies, and that this effort must direct future researches on breeding programs, nutritional management of breeders and the viability and impact of hybrid production.