Ministério da Agricultura, Pecuária e Abastecimento

GOVERNO FEDERAL BRASIL PAÍS RICO É PAÍS SEM POBREZA

Researches is health of Pirarucu, *Arapaima gigas*: Partnership between EMBRAPA-SEBRAE

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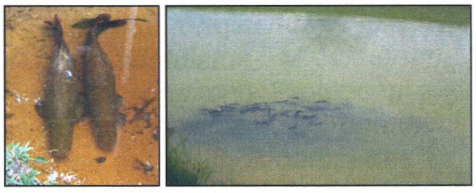
Introduction / Aim

The pirarucu, *Arapaima gigas*, is a Brazilian native fish with great aquaculture potential, due to its rusticity, high growth rates and market acceptance.

However, the lack of knowledge of breeding in captivity results in insufficient fingerlings supply and high market value.

Moreover, high incidence of mortality is observed after parental care separation and during the initial laboratory farming, where they are kept for feeding training (Figure 1). Records relate mortalities to the occurrence of parasites and opportunistic bacteria. Although the diagnosis is not always realized, protozoa and metazoan ectoparasites of high pathogenicity are often foundin in this species, considering those conditions. (Figure 2).

Aiming to deepen the scientific knowledge on health aspects of pirarucu, and attempting to improve the fingerlings survival rates a partnership was signed between SEBRAE and EMBRAPA, in collaboration with the UFT.



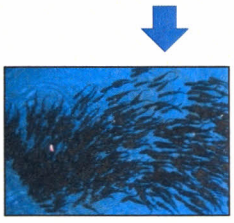
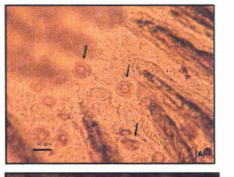


Figure 1 – Pirarucu parental care before separation. Initial laboratory farming, where the fingerlings are kept in laboratory for feeding training. Phases with high incidence of mortality.



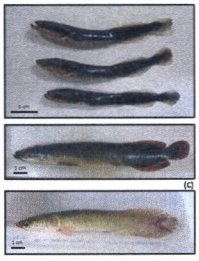


Figure 2 – Although the diagnosis is not always realized, records relate mortalities to occurrence of protozoa (A - *Trichodina* sp.) and metazoan ectoparasites (B - Monogenea); and (C) opportunistic bacteria.

Methods

This agreement will implement actions in three lines:

① Parasitology, which will study relations between *A. gigas* parasitism and water quality;

② Disease prevention, which will evaluate methodologies to enhance fish immune response;

③ Diseases treatments, which will be evaluated parasitic infections' treatments in specific farming systems.

Potential Impacts on Solving Animal Health Issues

The results will influence the development of the productive chain through better knowledge of the species, and therefore acting to increase the healthy fry supply to the market.

This is a short-term reducing costs strategy for fingerlings production and aims to increase the juveniles availability to provide the demands of growing fish farms.

Partnership and Collaboration: SEBRAE UFT