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BRIEF COMMUNICATIONS

Titulo

A comparative study of phagocytic activity and lymphoproliferative response in five varieties of tilapia *Oreochromis* spp.

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The immunological status of three native species of tilapia *Oreochromis* spp. and two hybrids were compared, showing a greater potential of the hybrid strain *O. niloticus* Rocky Mountain for aquaculture and a better capacity to resist the stressful conditions of a fish farm.

Key words: hybrid crosses; lymphoproliferation; *Oreochromis* spp.; phagocytosis.

The stressful conditions of aquaculture are known to compromise the defence mechanisms of fishes. As a consequence, there is a major need to study their immune response to obtain a better understanding of the host resistance to stress and pathogens (Sarder *et al.*, 2001).

The fish immune system is divided into two responses: the innate and the adaptative. Within the innate immune response, phagocytosis is a fundamental and generally efficient mechanism that provides the host with a continuous surveillance against foreign invaders and is ultimately responsible for the destruction of the phagocytosed pathogens (Silva *et al.*, 2002). In the adaptative immune response, T and B lymphocytes play a pivotal role in directing both specific humoral and cellular responses (Dixon & Stet, 2001).

'Tilapia' *Oreochromis* spp. is the common name given to a group of cichlids endemic to Africa and this species is especially successful in warm-water aquaculture. Today five varieties of tilapia are economically important to the aquaculture industry worldwide: the three species *Oreochromis mossambicus* (Peters,

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