RESULTS OBTAINED FROM POLYPLOIDY PRODUCTION IN NILE TILAPIA (*Oreochromis niloticus*)

AMARAL, H. J., PRANDO, N. C. C., RAMOS, F. M.

Triploid animals are frequently more productive than regular diploids. Another great advantage of triploidy is the fact that these animals are infertile, and therefore do not spend energy in gonad maturing. The Nile tilapia sometimes offers restrictions for being a highly prolific fish in temperate waters, thus impairing more intensive monocultivations.

In this work, a tetraploidy production technique was used with tilapias (n=44), witch consisted of applying thermal chocks on recently fertilized eggs, for subsequent breeding with normal diploid animals, as a means of propagating triploid generations

The breeding batch was compounded by 02 males and 07 females, weighting between 170 and 300 grams. Spawning was induced by fast water heating (from 22 to 27^0 C). The tank had 1000-litre capacity, contained crushed rock in the bottom for filtering and nesting purposes, a glass viewer, 600 W water heating and aquarium double micro-compressor.

The fertilized eggs were collect directly from the female mouths. 60 minutes after fertilization, the eggs were placed into a water container at 40^0 C for three minutes so that the thermal shock could avoid the second mitotic division, thus producing cells with 4 pairs of chromosomes.

132 eggs were incubated for this test. After the thermal shock the eggs were incubated in screen-type incubators, and hatched within an 8-day period

The post-larvae, 56 in number, were left 21 days into a 1000-litre water tank, under a constant temperature of 27^0 C. Then, they were moved to a 3000-litre capacity tank, also under 27^0 C, and fed a 55% raw protein ration for 12 hours daily.

With 48 days and weighing around 25 grams, the remaining fingerlings were submitted to a cariotype classification. The results proved effective for tetraplody.