

COMPARATIVE POND PERFORMANCE EVALUATION OF GENOMAR SUPREME TILAPIA™ GST1 AND GST3 GROUPS

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Abstract

Two populations of GenoMar Supreme Tilapia™ (GST), herein coded as GST1 and GST3, originated from GenoMar Breeding Program from two different non-consecutive generations, were evaluated on the basis of their pond performance, specifically for growth rate, survival rate and food conversion ratio (FCR). This study was done in six earthen ponds (3 replicates per generation group) at the GenoMar Supreme Philippines (GSP) R&D facilities in Lubao, Pampanga, Philippines. The main objective of this pond performance evaluation is to compare the evolution in terms of growth and survival rate of these 2 distinct GST generations under a commercial scale operation in order to determine the commercial profitability of new generations GST fingerlings in ponds.

The stocking density was maintained at 4/m² in all treatments and a standard water quality bio-manipulation technique developed at GSP was applied throughout the entire grow-out period in order to optimize natural productivity and standardize water quality parameters. During the trial the major water quality parameters did not show significant difference. Results showed that there was a significant growth rate difference between these two groups at the end of the 16-weeks growing period. The GST1 and GST3 populations have indicated an average body weight (ABW) of 116 and 170 grams, respectively. This indicates that the GST3 population grew by as much as 46.5% bigger than the GST1. Similarly, there was a very significant difference of about 15.8% from these 2 groups survival rate, with the GST3 showing a survival of 80.8% compared with GST1's 69.0% survival rate. It should be emphasized that this study was conducted from the period of November 2003 to March 2004, which is basically the colder period in the Philippines wherein the growth of the tilapia is not optimal during this period of the year. A second study of similar design and objective will be done during this summer period so that these growth performance indicators of these two GST groups can be evaluated under these two climatic conditions.