

GenoMar 1000

A fast-growing and resilient tilapia genetically selected for high yield in aquaculture

Following more than 33 generations of selective breeding using state-of-the-art technologies, the GenoMar tilapia (*Oreochromis niloticus*) has been recognised as the most advanced and genetically improved tilapia world-wide.

GenoMar 1000 is a genetically selected strain of tilapia with first-class health, survival, growth, and fillet yield traits.

High performance

GenoMar 1000's high performance and feed efficiency, significantly reducing production costs and environmental impacts, contribute to better productivity and capacity utilization.

The high survival rate of GenoMar 1000 is based on selection for general robustness and specific disease resistance, such as infections caused by *Streptococcus*, *Flavobacterium*, and *Francisella*.

Increased survival reflects improved health and better animal welfare.

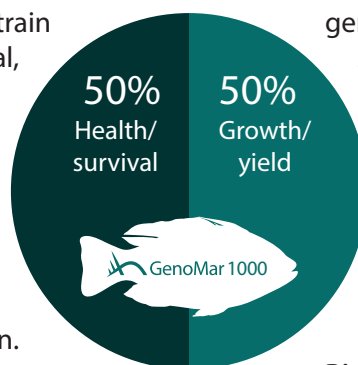
Predictable biological achievements ensured by genomic selection and line breeding

GenoMar 1000 is made by a crossbreed of the best genomic selected females from the health and survival line and males from the growth and yield line.

The weighting of the traits is 50/50 of these parental lines in the offspring delivered to the farmers. The fingerlings/juveniles are expected to surpass the performance of the parental lines.

Biosecure production

To deliver disease-free fingerlings and juveniles to the farmers, GenoMar 1000 is produced in facilities that maintain high standards of biosecurity. This leads to a more predictable, healthier, and sustainable tilapia production.



Proof of performance



More production cycles per year – better capacity utilization

GenoMar 1000 has a proven growth rate from 22 g to 1,000 g in 114 days in cages, and 121 days in ponds. These results are based on a field trial conducted under commercial farming conditions in Brazil (Figure 1). This superior growth leads to increased productivity as numbers of production cycles per year can be increased (Table 1).



Reduced environmental and disease risks

The fast growth entails a reduction in the number of farming days and less exposure time to infections and environmental risks.

Increased survival throughout the life of the fish

GenoMar 1000 has demonstrated an average survival rate from stocking to harvest of 95.2% (22 g - 1350 g) in cages and 93.4% (22 g - 1,196 g) in ponds in the referred Brazilian field trial (Figure 1).

Animal welfare

The high survival rate of GenoMar 1000 reflects improved animal welfare through reduced mortality and enhanced health.



Uniformity

GenoMar 1000 has shown high uniformity at harvest in cages and ponds. At a target weight of 1000 g, 74% of the fish in cages and 75% of the fish in ponds were within the weight category 850-1150 g (Figure 1).

Table 1. Key performance indicators from farming of stocked 22 g juveniles until 1,000 g of body weight in a field trial in Brazil. The increased annual profitability is compared to a local commercial strain.

Production system	Days to reach 1 kg	Average daily gain	Feed conversion ratio	Survival	Annual profitability
Cage	114	8.56 g/day	1.75	95.2%	+ 36%
Pond	121	8.07 g/day	1.67	93.4%	+ 31%

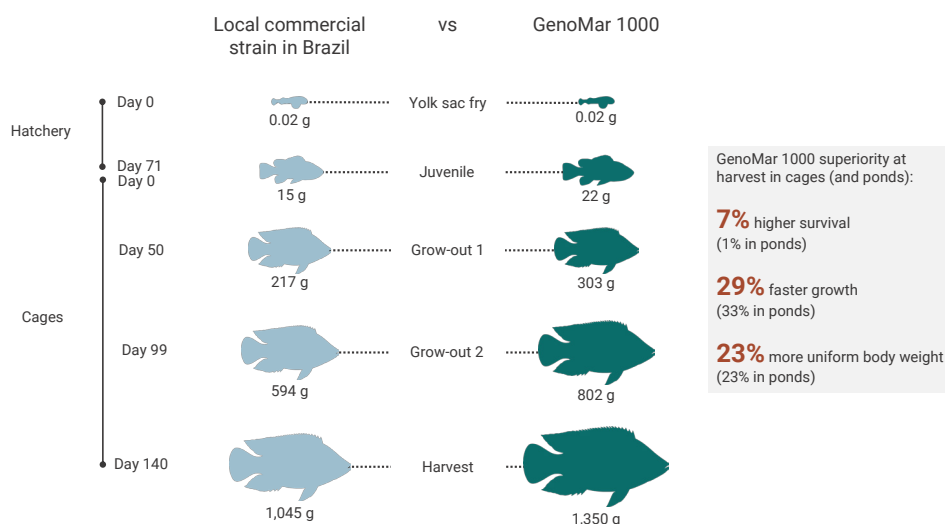


Figure 1. Growth development, final survival, and uniformity of GenoMar 1000 compared to a local commercial strain in a field trial in Brazil. The results presented are an average of two cages with a 50/50 mix of the two strains (common garden design), with individually tagged fish. More details about this trial can be found here: <https://genomar.com/wp-content/uploads/2024/06/Impact-of-genetics-in-tilapia-production.pdf>