

IMPROVED TILAPIA, KMFRI-SAGANA STRAIN (F8-2020)

Nile tilapia (*Oreochromis niloticus*) contributes 80% of the fish farmed in Kenya among other several tilapia species. Nile tilapia farming in Kenya has been posed with challenges of prolific breeding in ponds leading to stunted fish and overpopulated ponds.

Selective breeding involves choosing parents with superior traits to breed together and produce offspring with more desirable traits

Problems of selective breeding

Fish populations with similar genetics (Similar strengths and weakness).

Diseases are more likely to spread in genetically similar population.

Could lead to breeding of individuals from the same family leading to Inbreeding.

Challenges to achieving better growth

Low temperatures in high altitude areas

Poor feeding

Use of poor quality feeds

Poor water quality management

Predators

Lack of stock improvement programme

Problems of Inbreeding in Nile tilapia

Fast maturity at a small size (<40g)

Prolific breeding in ponds

Reduced and stunted growth

Lower yields

Poor FCR

Benefits of selective breeding

Increased farm production

Fish with better fillet yield

Fish with improved growth rates

Fish resistant to diseases



On farm F-8 strain validation growth performance

