

IMPROVED MIXING AND FINE BUBBLE AERATION HELP TO REDUCE WATER EXCHANGE, SHORTEN PRODUCTION CYCLE AND INCREASE OVERALL GROWTH RATES



CASE STUDY

OVERVIEW

Finca Empacadora de Tilapia Milagro is one of the fastest growing and successful tilapia projects in Central America since its operation started in 2015. Located outside of El Progreso Yoro, Honduras, near a high-quality tributary of the Quebrada La Ruidosa river, the farm site was strategically chosen. Sergio Antonio Alvarado Lopez, owner and day to day operator of the project decided to invest in tilapia as it appeared more of a stable income than the auto industry where he was previously employed.

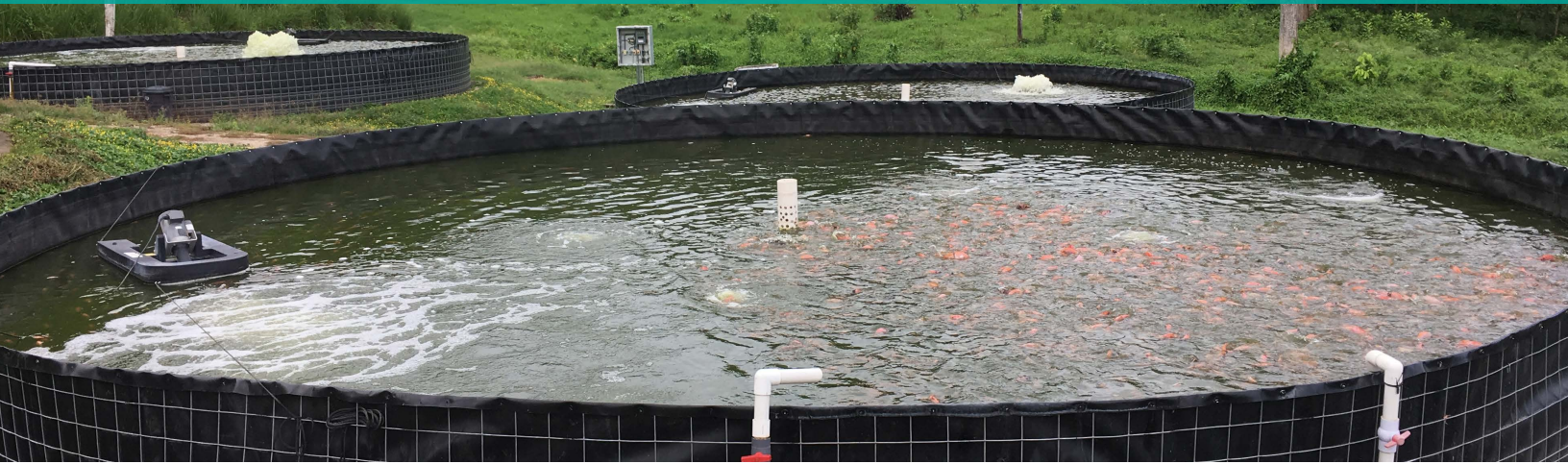
CHALLENGE

Equipped with diffusers and one surface aerator in the 12.5 x 1.2m circular tanks, the farm maintained adequate oxygen levels and the production was decent. However, in order to manage the sediment levels in the tanks and maintain water quality parameters, the staff had to exchange 400-500% of water daily. Moreover, due to uneven mixing, feed was settling in one location of the tank, which caused more competition for feed amongst the tilapia. This affected the uniformity of growth during the production cycle and ultimately a variation of differently sized tilapia at harvest.

SOLUTION

After conducting online research and asking for recommendations, Sergio finally found his way to Aeration Industries International. Peter Meng from Bioproyectos, the representative for Aeration Industries in Central America, partnered with Sergio to recommend a solution and initiate a trial with one 2hp Aire-O₂® Series II aspirator aerator in the tank. The results from the trial concluded that they could drastically reduce their water exchange and generally had cleaner water in the tanks. Therefore, based on the trial results, Sergio decided to introduce the 2hp Aire-O₂ aerator to the life stage when the tilapia are around 100g until harvest or around 400g.

CASE STUDY: AQUACULTURE



RESULTS

Since incorporating the Aire-O₂ aerators in their tanks they have been able to drastically reduce water exchange from around 400-500% down to 100-200%, which has not only saved them resources but also has improved biosecurity. Their production cycle has shortened and feed conversions have also improved. Improvements with uniformity in growth sizes from more equal displacement of feed in the tank also makes for a more profitable harvest.

Aside from being happy about the results, Sergio was satisfied how the propeller guards securely protect the propeller from any contact with the tilapia.

IMPACT

Sergio's experience working with Bioproyectos and Aeration Industries has been in his words, "excellent". After visiting Finca Empacadora de Tilapia Milagro you feel good about what they are doing and you can see they care about how they do it as well. They have their own genetic line of tilapia and harvest everything fresh on-site at the farm. Also, once a year, they offer a tilapia harvest for the local community and have also constructed a public swimming pool for adults and children.

SOLUTIONS PROVIDERS

Questions on how we can help solve challenges you're facing? Contact us at [+1-952-448-6789](tel:+1-952-448-6789) for more information. Together, we can create innovative solutions for your waster challenges.