

VACCINE ECONOMICS

Tilapia vaccines | CoA conference

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VACCINATION IN NILE TILAPIA: IS IT WORTH IT?

- To **stimulate** the immunity safely prior to the vulnerable stages in the production cycle.
- Allowing your stock to **react faster** when confronted by the vaccinated pathogen.
- **Improving** survival, FCR, quality of meat and the welfare of your fish.
- To reduce the usage of antibiotics for a more **sustainable industry**.



VACCINE ECONOMICS: CASE STUDY

We have a farm interested in vaccinating 10'000 Nile Tilapia:

Vaccinated cage

- Vaccine investment for 10k fish is **6395,49 GH¢** (64Gp/fish)
- Harvest survival at **90%** or 9000 fish
- Volume yield of **4500kg** (500g fish)
- Revenue of **158k GH¢** (35GH¢/kg)
- Gross sales is **151k GH¢**

Un-vaccinated cage

- No vaccine investment for 10k fish
- Harvest survival at **75%** or 7500 fish
- Volume yield of **3750kg** (500g fish)
- Revenue of **131k GH¢** (35GH¢/kg)
- Gross sales is **131k GH¢**

Difference of 19'854,51GH¢



ADDITIONAL BENEFITS OF VACCINATION

In this case study presented you need **3.1% better survival** to breakeven with vaccination costs.

Added benefits of vaccination not taken into account in the case study:

- A better FCR performance in vaccinated fish
- Higher quality of fish products

J.A.F. Junior, et al.

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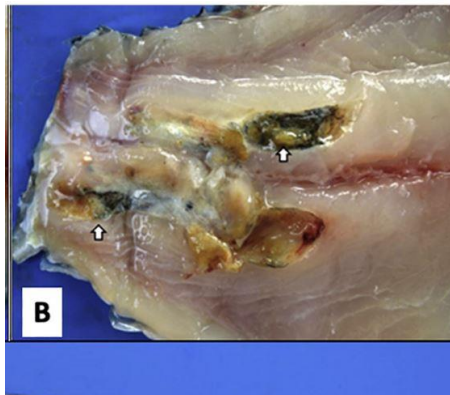


Fig. 1. Nile tilapia fillets with the different macroscopic lesions verified: A- Skeletal muscle: multifocal black spots on the lateral surface of the fillet (arrows) caused by *Francisella noatunensis* subsp. *orientalis* infection (MP-1); B- Skeletal muscle: multifocal to coalescent cavity with gray background and yellow exudate (arrows) of necrotic tissue in the caudal region caused by *Streptococcus agalactiae* infection (MP-2); C- Skeletal muscle: chronic necrotic myositis, characterized by white and yellow multifocal areas on the surface of the fillet (arrows) (MP-3). (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

IMPROVING VACCINE PROFITABILITY

From our case study, investing in vaccine can become even more profitable if:

1. The selling price per kilo of fish increases
2. If the fish are vaccinated during the warmer season
3. Vaccinating fish for larger sizes (eg. Size 4)

More vaccination tips with **Mr Sandy Chatham**



THANK YOU FOR
YOUR ATTENTION

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