# FIELD APPLICATIONS

Tilapia vaccines | CoA Conference

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## SUMMARY

- Introduction
- Before vaccination
- Implementation in the field
- Good vs bad vaccination
- Vaccination machines
- Optimisation

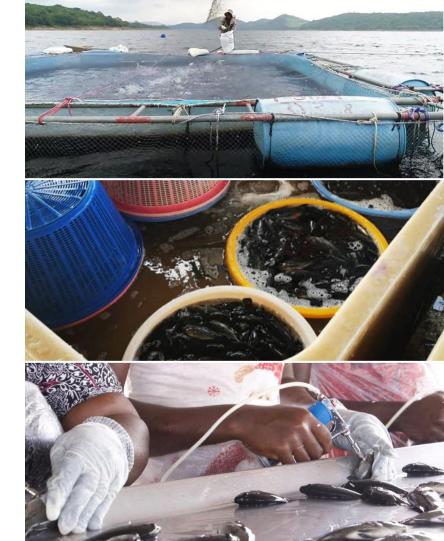




# INTRODUCTION

The most common way that vaccines can be administered in Nile Tilapia:

- Oral
- Immersion
- Intraperitoneal





### Each application has **PROS** and **CONS**:

Administration route	Application	Duration of Immunity (Dol)
Oral	+++	+
Immersion	++	+
Intraperitoneal	+	+++



So, you decided that vaccination is the right solution for your business.

You have the **recommendation from your veterinarian** and you are **ready to invest**.

What is the next step? Which questions to ask?





# **BEFORE VACCINATION**

- Know your product
- Request access to temperature
  records
- Check on the expiry dates
- Request a product data sheet
- Get information on the condition of the product
- Is the product registered and approved in your country?





Finally, you purchased your first batch of vaccine and it is being delivered to your farm.

What's next?





# **BEFORE VACCINATION**

- Make sure the storage facility is appropriate
- Restrict access to the product
- Check the temperatures
- Confirm the **batch numbers**
- Do not freeze your vaccine!
- Have a backup generator





- Make sure your fish are healthy
- Do not vaccinate under I0g
- Grade your fish, if possible
- Starve your fish (24h)



- Make sure staff is well trained
- Ensure the safety of your people
- Good maintenance of equipment
- Disinfect and calibrate





## IMPLEMENTATION

- Keep an eye on the **weather**
- Check the oxygen levels
- Be very careful when gathering the fish!
- Adjust the anaesthetic baths
- Keep the tables moist and smooth
- Ensure the use of correct needle sizes
- Always shake the vaccine bottle and keep it cool



Now, you are all set to begin vaccinating.

How to make the most of your investment?Here, the answer is very simple:Ensure the quality of your vaccination. How?





## DIFFERENCE BETWEEN GOOD AND BAD VACCINATION

- Transfer the fish gently to the vaccination table
- The point of injection is very important
- Be careful on the pressure you apply during the injection
- Control the timing: push, inject, remove
- Fish counters on syringes are recommended
- Remove fish showing clinical signs and euthanize them appropriately
- A well trained vaccinator in Ghana can vaccinate up to 12k fish daily



### DIFFERENCE BETWEEN GOOD AND BAD VACCINATION

#### Bad vaccination ——



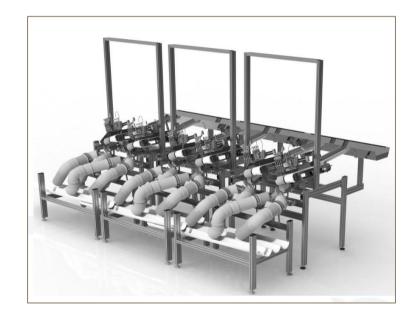


#### Correct vaccination —



#### What about vaccination machines? When to consider them?







#### Advantages and disadvantages of vaccination machines

Advantages	Disadvantages
Accuracy	Expensive
Traceability	Technical support
Automatic grading	Spare parts
Less labor force	



Finally, your fish are vaccinated and back in their cages.

How to perform **quality checks**? Is it possible to optimise the process even more?





# AFTER VACCINATION

- Ensure the traceability of each vaccine batch
- Keep a score sheet to record fish sizes, needles used, environmental factors, team vaccinating that day and issues with the syringes.
- Pharmacovigilance reports







# FURTHER OPTIMISATION

- Have healthy fish at vaccination
- Promote herd immunity
- Maintain **biosecurity** across the farm
- Use appropriate stocking density
- Continue with regular disease screening





# THANK YOU FOR YOUR ATTENTION

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