

FARMED FISH WELFARE IN EGYPT: SURVEYING CURRENT PRACTICES AND FUTURE DIRECTIONS FOR TILAPIA CULTURE

Authors: Wasseem Emam^{1,2,3}, Mohamed Bakr^{1,4}, Charlotte Flores⁵, Christopher Bryant^{5,6}

¹ Ethical Seafood Research, UK | ² Institute of Aquaculture, University of Stirling, UK | ³ Faculty of Veterinary Medicine, Complutense University of Madrid, Spain | ⁴ Kafr El-Sheikh University, Egypt | ⁵ Bryant Research, UK | ⁶ Department of Psychology, University of Bath, UK

HIGHLIGHTS

- We present the findings from a Knowledge, Attitudes, and Practices (KAP) survey of 104 tilapia farmers in Egypt.
- Most farmers had implemented limited welfare measures but **water quality was an important factor** which was often overlooked.
- Fish farmers who had received welfare training were significantly more likely to **experience lower mortality rates**.



INTRODUCTION

Egypt is one of the world's top producers of farmed fish, with Nile tilapia leading in terms of species farmed.

- Egyptian aquaculture is dominated by three groups of fish: **tilapias, mullets, and carps**.
- **Semi-intensive production in earthen ponds** is the most commonly used aquaculture system in Egypt.
- Unlike other farmed fish species, there are currently **no commercial animal welfare standards** for Nile tilapia.
- This study aims to reinforce existing efforts to improve the welfare of farmed fish in Egypt.



METHODS

A **knowledge, attitudes, and practices (KAP) survey** was conducted among Egyptian tilapia farmers.

- Survey data collection took place between April 19th, 2024, and June 10th, 2024.
- A questionnaire was developed **based on a comprehensive literature review** of tilapia farming practices in Egypt.
- Participants were recruited by enumerators who visited farms and offered them the opportunity to participate in a survey in exchange for a water testing kit.
- Survey data was analysed using descriptive statistics to summarise current practices, challenges, and perceptions related to tilapia welfare.

Farmers who received welfare training reported lower fish mortality rates compared to those who had not received welfare training.



RESULTS

On average, improving water quality was perceived by surveyed farmers as the most important measure for achieving good tilapia welfare.

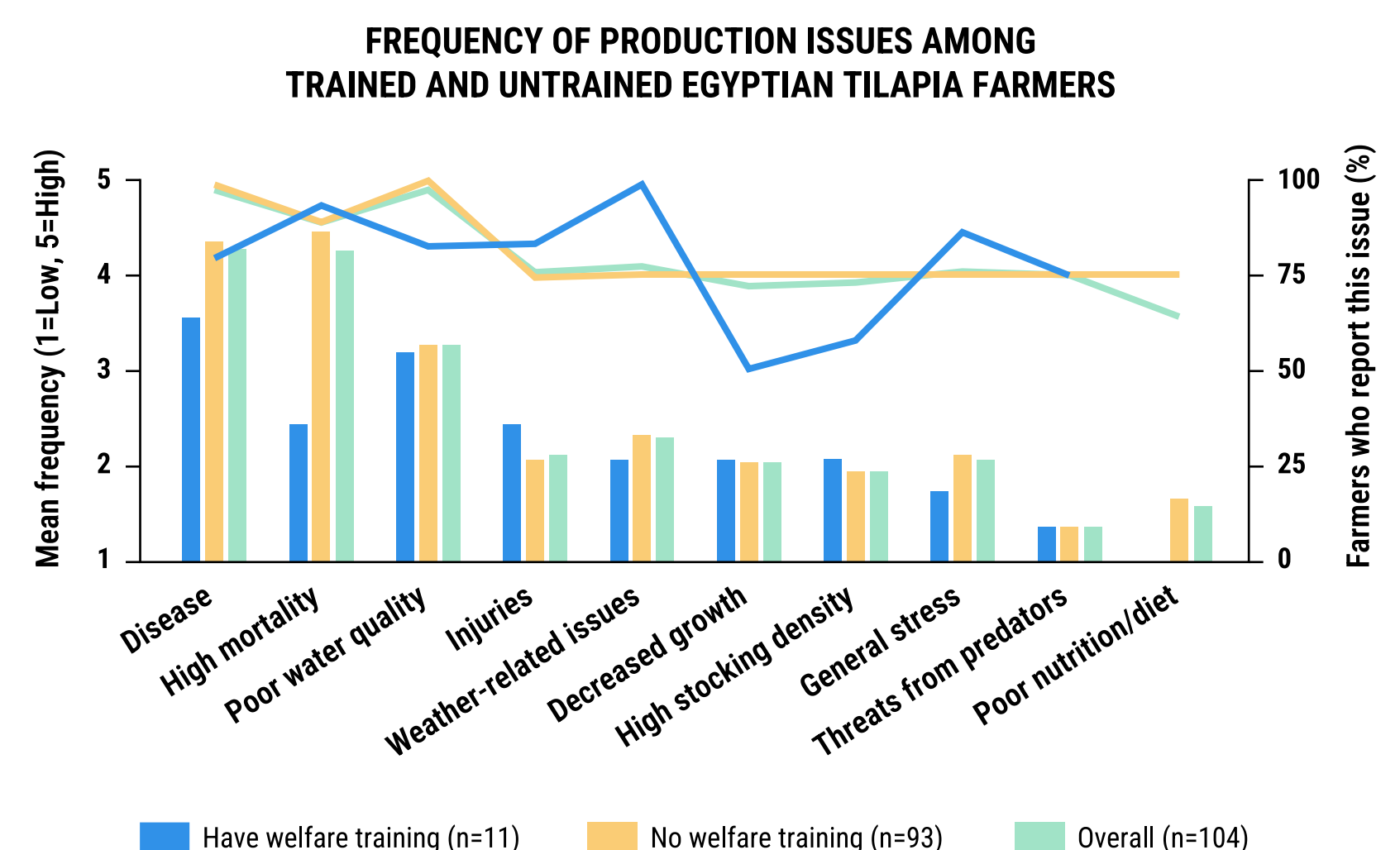
- The most common form of training that farmers reported receiving was **on-the-job training**.
- Most farmers reported implementing some welfare measures, such as providing nutritional feed, removing water pollutants, providing high-quality water, and stocking fish at a density that allows them to swim freely.
- The major **perceived benefits of improving fish welfare** relate to product quality and farm productivity.



CONCLUSIONS

There is a clear reported desire and need for more training on animal welfare among tilapia farmers.

- The gap between perceived importance and ability to improve water quality suggests that farmers could benefit the most from training in this area.
- The results of this survey can **help promote the adoption of high-welfare farming practices**, contributing to the long-term development of ethical and responsible aquaculture in Egypt.



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