

# Fish Farmer Perspectives On Fish Health Management And Veterinary Involvement

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# What is your Fish Disease Response Plan?

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- Nothing
- Call a fish farmer friend
- Call the farm that sold you the fish
- Call your veterinarian
- or fish health professional
- Call Diagnostic Lab
- Call me
  - And I will facilitate connecting fish farmers with resources in your state

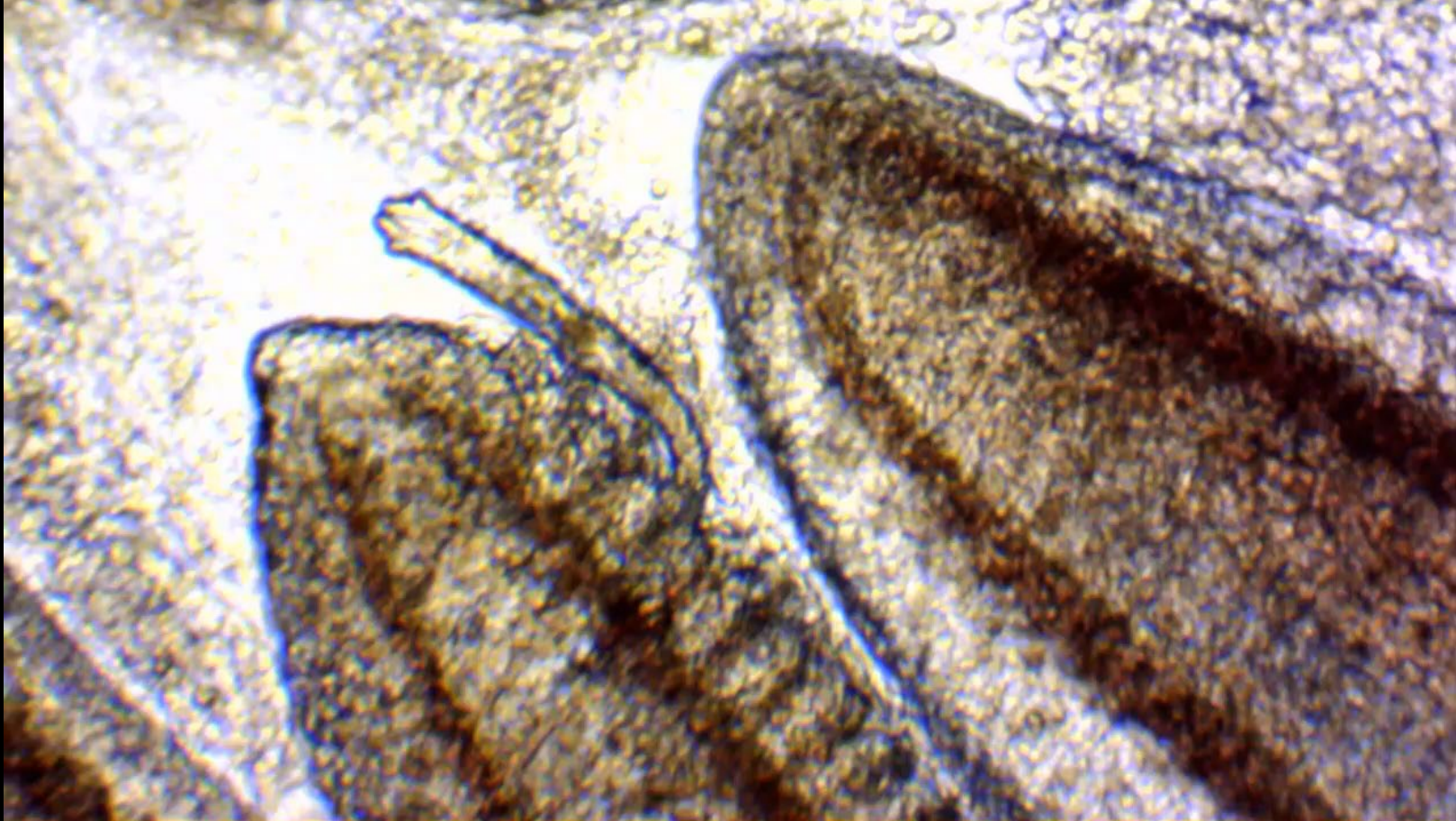


# On-site Diagnostics

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# Microscope use on farms





## Disadvantages of not making an accurate diagnosis

- Feeling in the dark
- Waste time, lose more fish, lose more money
- Use drugs that don't work because the organism is not susceptible



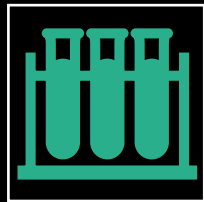
# Submitting Samples to a Diagnostic Lab

- **When you just submit sick fish what is missing?**
  - History on your farm
  - The incidence of disease in your species in your region
  - The health status of the origin of your fish
  - Water quality findings
  - Management practices

# Advantages of working with a Veterinarian on Submissions



Well-trained veterinarian  
or fish health professional



Send the right samples to  
the right lab



Interpret laboratory  
results



Provide best  
recommendations based  
on lab results

# Send the right samples to the right lab

- Some labs are better set up to process coldwater fish
- Others are better at warmwater fish diseases





# Interpreting laboratory results

- Veterinary Pathologists and Fish Health Pathologists use language that may not be clear and obvious to farmers



Provide best  
recommendations  
based on lab  
results

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# Subjective findings

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# Objective findings

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# Assessment

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# Plan

# What to do when Fish Health Issues Arise?

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- Go to your plan
- How do you know you have an issue?



# How do you know you have a problem?

- Increased mortality
- Increased morbidity

What is normal mortality?

What is normal morbidity?



# Disease Losses – What is the Cost?



Direct losses

Mortality

- Facility closure orders
- Restriction of movement orders
- Inability to replace stock

Market losses

Reduced quality of survivors

Reputation diminished

Missed markets

- Adapted from Paterson et al. 1991

# Partial Budget Analysis

| BENEFITS                           | COSTS                               |
|------------------------------------|-------------------------------------|
| <b>Additional Revenues</b>         | <b>Additional Costs</b>             |
| Surviving fish (reduced egg costs) | Veterinary Service                  |
| \$10,000                           | \$3,000 high estimate (\$800)       |
| <b>Costs Reduced</b>               | <b>Revenue Reduced</b>              |
| Reduced labor                      | None                                |
| \$4,000                            | \$0                                 |
| Reduced replacement fish           |                                     |
| \$8,000                            |                                     |
| <b>TOTAL BENEFITS</b>              | <b>TOTAL COSTS</b>                  |
| \$22,000                           | \$3,000                             |
| <b>NET GAIN =</b>                  | <b>TOTAL BENEFITS – TOTAL COSTS</b> |
| <b>\$19,000</b>                    | \$22,000 - \$3,000                  |

# Acknowledgements and Questions



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