Fish Farmer Perspectives On Fish Health Management And Veterinary Involvement

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What is your Fish Disease Response Plan?

- 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
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
Subjective findings

Objective findings

Assessment

Plan

Provide best recommendations based on lab results
What to do when Fish Health Issues Arise?

• 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

<table>
<thead>
<tr>
<th>BENEFITS</th>
<th>COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Revenues</td>
<td>Additional Costs</td>
</tr>
<tr>
<td>Surviving fish (reduced egg costs)</td>
<td>Veterinary Service</td>
</tr>
<tr>
<td>$10,000</td>
<td>$3,000 high estimate ($800)</td>
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<tr>
<td>Costs Reduced</td>
<td>Revenue Reduced</td>
</tr>
<tr>
<td>Reduced labor</td>
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<tr>
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<tr>
<td>Reduced replacement fish</td>
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<td>TOTAL BENEFITS</td>
<td>TOTAL COSTS</td>
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<tr>
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</tbody>
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**NET GAIN =**

**$19,000**

$22,000 - $3,000
Acknowledgements and Questions

NCRAC Grant #2020-38500-32560

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USDA NIFA