

Affordable Application of Pond-Side Tanks to Increase Production of Coolwater Species

Presented by :

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The Historic Battle

(Economics vs Biosecurity)



Common Pond Problems



More Problems



More Problems



More Problems



More Problems



More Problems



More Problems



More Problems



More Problems



More Problems



Tackling the Problems

- None of the problems matter if the final product is full of parasites
- Specifically need to deal with yellow grub and black spot which are from the blue heron and kingfisher respectively (as well as two snail intermediate hosts)
- To be somewhat environmentally friendly we should be looking at kind methods of biological, chemical or mechanical control

Incorporation of Pond-Side Tanks

- Obtained a SARE Grant (FNC08-731) to demonstrate the effectiveness of eliminating grub infestations in perch and bluegill.
- Obtained ADD Grant (24023) to demonstrate that infestation may be a function of water flow
- Proved that pond-side tanks can prevent grub infestation even if the feed water is infested with the infective stage of the grub.

What do the Tanks Look Like



More Tank Layout



Tank Mechanics



Cost of Operation

- One pump is run per day per bank of tanks (three tank system) for about \$1.00/day
- No aeration needed because flow through is more than adequate to re-supply oxygen needs of fish
- Feed provided at about 2% body weight per day but no more than indoor system so cost is identical

First Year Benefits Observed

- Eliminated all infestations of parasites
- Fish grew at about 1 inch per month – if fish are stocked by May 15th at 4-5 inches, they will be on the table by Sept 15th
- Fish percent yield went from between 45-48% in regular pond run stock to over 50% in 2015.
- Significant reduction in amount of fat observed in body cavity versus that found in previous pond-raised fish.

Logical Extension

- These systems can be set up for well under \$5,000
- The system needs no more than a ¼ acre pond for a water supply – preferably deep enough to stay cool in July and August
- A single tank can supply between 5 and 10 families an entire year of perch, bluegill, or saugeye
- The pond-side tank system is ideal for providing fish in a CSA application.