Division of Marketing
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Grant Title Feasibility Study to Grow Yearling Perch to Market Size in 180 Days Using the In-Pond Raceway Method for Two Consecutive Years

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Name Jack Woyak

Organization J & J Woyak Farms
Bancroft

E-Mail

WEB

Department Contact: DATCP - Marketing - ADD Grants
PO Box 8911 Madison, WI 53708-8911
Tel: (608)224-5136
http://datcp.state.wi.us

PROJECT SUMMARY

Wisconsin has many existing farm, quarry, irrigation, natural ponds and waterways that with the use of In-Pond Raceways (IPR) can be a very effective tool for raising Yellow Perch. Because of the certain advantages of the IPR system our intent was to study the possibilities of producing a marketable size Yellow Perch in 180 days. The concept proved to be successfull, and also provided several new management ideas.

One of our limiting factures in exploration of these new ideas was the unforeseen demands of our family potato farm. In 1995 with a moderate loss followed by 1996, a sever devastation, we would have loss less if we never harvested the crop! Many changes where made. Hopefully getting over the hurdle we plan on slowly continuing our Yellow Perch project. Goals of achieving solutions and forsight on improvments.

One thing that stands out in this project is the goal of growth in 180 days. Like farming, timing is very important. You have to optimize on the water temps for maximum growth. Make sure yearling Yellow Perch are stocked before April 15th. Before this time water temps are cooler, providing better mortality rates in handling, transport, and stocking. The health of the yearling Yellow Perch is critical! It is much easier to maintain than correct injured or stressed yearlings. You lose time and growth per day. As they say in farming "You must plant a good seed otherwise all the corrections in the world will never equal the outcome."

The 180 day factor in Wisconsin for growth to market is definitely possible using an IPR system. The key is heath from day one. Set backs usually can not be caught up. By mid October theYellow Perch females produced 25% + more growth than the males consistently. At this time seperation of male and females is fairly simple. Best over all results can be obtained by initially stocking only females.

There are many positive aspects in using the IPR system:

* Fish are where they can be observed.
* Confines fish for feeding.
* Fish can be treated if disease breaks out.
* Early detection of disease.
* Fish can be harvested with relative ease. Irregular depths and pond bottoms are difficult to harvest.
* Predators have no access if IPR's are covered with netting or screens.
* Fish waste can be collected for alternative uses, insuring continuous water quality especially under high densities.
* Allows for higher densities for limited water sources.
* Provides for better utilization of optimal water temp control.
* Provides the means for uniform testing and control of all aspects of raising fish.

The IPR systems has an excellent potential in Wisconsin for raising Yellow Perch.

The basic design and constrution of the IPR proved to be very adaptable to Wisconsin winters. The ice formations and pressures showed no adverse affects to the structure. Some added features to note: 1) Make sure to place a protective screen device over the actual raceway itself. Screen must be small enough not to allow the smallest fish through. Experienced two reasons, spring 1996, it took a matter of a day for otters to wipe out our complete over wintering stock. 2nd, spring 1997, it took a matter of an hour to release our over wintering stock into the main waterway. A quick spring thaw may raise the water level in your pond, especially in a drainage area where most existing ponds were constructed by man or nature, can produce several inches of water over the ice. The raceway is held by the ice, causing water to over flow, alowing the fish to escape out the top. Another thing can be done, is to cut the ice around the perimeter of raceway to allow floatation above flood waters.

2) An automatic water inlet temperature control system. In our project, we manually operated inlet water temps. Water temps are controlled by the level of your inlet possition in the pond. Many things control the water temp from surface to bottom and at times with great variations; seasons, weather, spring fed, water source, irrigtion, ect,. You must maintain the optimal water temps with little to no variations. A computerized or electronic base board control would be greatly benificial not only for max fish growth but also for controlling therapy of stressed stock.

Advice would be to gather all information possible on every aspect of raising Yellow Perch, IPR systems, fish handling and transport; be present from catch to release or double check on reliable suppliers and shippers, proper feed and feed ratios; use this as a guide line only - develop a feel for each particular batch of fish, observations is the greatest teach, study disease - prevention and control, automation of water temp controls with alarms; do not solely rely on it - keep close observation, water quality, and most of all, personal contact with the people involved with the aquiculture industry. This is one industry that strives as a group to better our understanding on saving our fish industry for the future.