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Aquatic Research Facility Update

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Abstract
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The first was an attempt to control the leaking ponds. Records from the 2005 catfish culture season showed that more than 8 million gallons of water was pumped into the 1.3 million gallons of pond culture space. The majority of the water was pumped into ponds 1 through 5. It was noted that pond 6 did not leak during the summer of 2005. After several discussions with engineers and others, the decision was made to apply a layer of bentonite to the pond bottoms. Twenty-three tons of bentonite was purchased from a quarry in South Dakota and trucked to the facility. With the help of two skid loaders, several staff, and inmate labor from the Iowa Department of Corrections, the bentonite was shovel-applied at a rate of 1 lb/ft^2 on the pond bottoms. It was then raked in by hand and packed with the skid loaders and a tractor. Re-filling of the ponds began in early November. The water level in the ponds will be monitored to determine whether the bentonite application solved the leaking problem.

Second, a 2-in. airline was plumbed to the six ponds. A blower was installed and airlift pumps were assembled. This will allow the ponds to be aerated and kept open during the winter. With the addition of these airlift pumps, additional types of research projects can now be investigated.

Third, wiring for 220-v paddle wheel aerators was trenched into the dikes. To complete this project, paddle wheels will need to be purchased in the future. This addition to the facility will also allow for other types of projects to be conducted.

The next research project will be initiated in early spring 2007 when golden shiners *Notemigonus crysoleucas* will be stocked. The objective of this project will be to determine the techniques needed to produce 3-in.-long golden shiners by November 1 of the year spawned. The project will include early season, indoor spawning followed by stocking the outdoor ponds.

More information about the facility is available at http://www.nrem.iastate.edu/arf/.