



12-month post hatch, intensively reared walleye in RAS at UWSP NADF.

## APPLIED RESEARCH AIMS TO ENABLE THE COMMERCIALIZATION OF WALLEYE FOR THE FOOD FISH INDUSTRY

**For over 15 years,** the University of Wisconsin-Stevens Point Northern Aquaculture Demonstration Facility (UWSP NADF) has experienced substantial success raising both walleye and hybrid walleye (saugeye) in indoor, intensive systems for research and demonstration of food-fish production.

By: Greg Fischer and Emma Wiermaa \*

Although most walleye filets are imported into the United States from Canada, this well-known species in the Midwest has a strong existing food fish market as well as fillet prices ranging from \$26-40/kg (12-18\$/lb.).

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ing both walleye and hybrid walleye (saugeye) in indoor, intensive systems for research and demonstration of food-fish production. Building on previous research on intensive culture of walleye, the facility is utilizing specialized larval rearing systems, optimized starter diets, enhanced husbandry, and indoor, land based, closed-loop production through recirculating aquaculture system technology (RAS), to assemble a systematic culture protocol

that has advanced walleye food fish production to the point that a commercial walleye industry is emerging.

Prior facility research has demonstrated walleye growth potential in indoor systems, reaching an average of .45kg (1.0lb) in 12 months from egg to market size utilizing RAS at commercial density levels of 60-90kg/cubic meter. Not only there is demand for this market-size walleye, but also an additional market exists for pellet fed and intensively reared

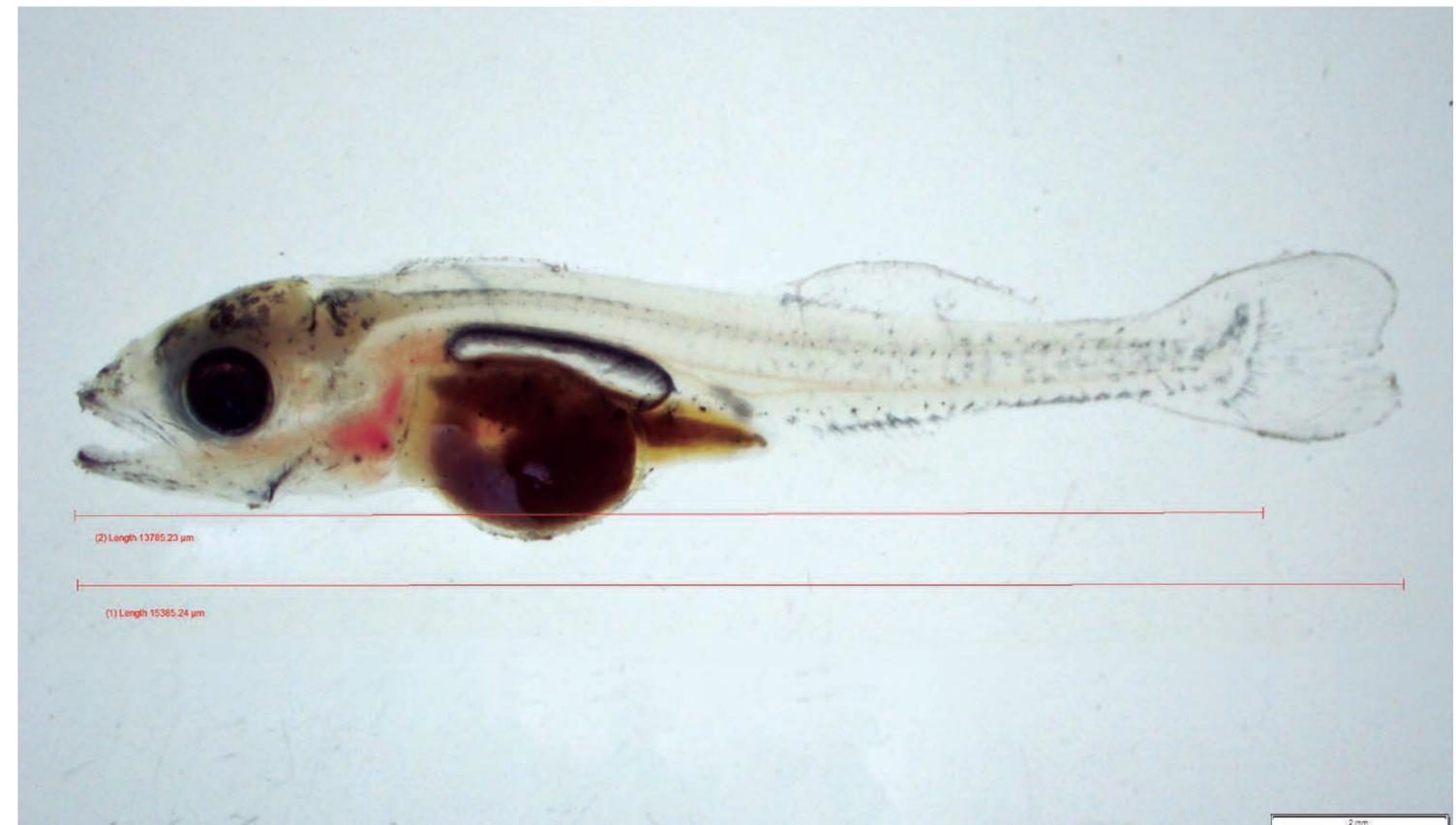
fingerlings, which are highly biosecure and can be utilized for stocking into other RAS or aquaponics facilities for grow-out. UWSP NADF Assistant Director and Research Programs Manager, Greg Fischer explains “We are seeing more and more interest in rearing walleyes intensively for both food fish and conservation stocking practices from a variety of state, federal, tribal and private agencies.”

There remains a limited number of bottlenecks for commercial walleye industry production. One of the most important is a domesticated in-house broodstock reared in RAS that can supply high-quality eggs and fry for out-of-season commercial production. Building upon past and moving forward with recent research projects related to commercial walleye production with the University of Wisconsin Sea Grant Institute (WISG) and the North Central Re-

gional Aquaculture Center, the facility is very close to achieving the goal of a commercial, land-based, regional walleye industry. The most recent walleye project, funded by WISG, “Commercial application of out-of-season spawning of walleye (*Sander vitreus*)”, is succeeding in completing the entire life cycle of walleye reproduction under intensive conditions within a land-based, sustainable, recirculating aquaculture system and is providing the methodology for supplying suitable eggs and fingerlings to a growing commercial walleye industry.

Efficient technology and information transfer of research findings to the industry is crucial for species adoption as well as success; therefore, the facility shares research outcomes, best management practices and techniques to farmers through on-site demonstration, publications, workshops, presentations at indus-

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UWSP NADF larval walleye.



Room for intensive production of walleye raised on commercial feed from hatch.

This research, demonstration, and technology transfer renders UWSP NADF as the leading research facility that is advancing the commercialization of raising walleye intensively for food fish production.

try events as well as technical videos such as the UWSP NADF Walleye Video Manual. This research, demonstration, and technology transfer renders UWSP NADF as the leading research facility that is advancing the commercialization of raising walleye intensively for food fish production. In addition, the facility has strong existing partnerships with both private

industry and public agencies, including The Conservation Fund Freshwater Institute in West Virginia and the Rathbun State Fish Hatchery in Iowa, collaborating in the forefront of walleye research and demonstration.

For further information on UWSP NADF research, demonstrations, and deliverables, please visit [aquaculture.uwsp.edu](http://aquaculture.uwsp.edu) 

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