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POND DYNAMICS/ AQUACULTURE COLLABORATIVE RESEARCH SUPPORT PROGRAM

## RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

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**Title:** Pond Culture of Tilapia in Rwanda, a High Altitude Equatorial African Country

**Author(s):** B.J. Hanson<sup>1</sup>, J.F. Moehl, Jr.<sup>2</sup>, K.L. Veverica<sup>2</sup>, F. Rwangano<sup>3</sup>, and M. Van Speybroek<sup>3</sup>

1. Rwanda Pond Dynamics/Aquaculture CRSP (Collaborative Research Support Program), Department of Fisheries and Wildlife, Oregon State University, Corvallis, Oregon, 97331, USA

2. Rwanda Fish Culture Project, International Center for Aquaculture, Auburn University, Alabama 36849, USA

3. Faculté d'Agronomie, Université Nationale du Rwanda, BP 117, Butare, Rwanda

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**Abstract:** Tilapia culture in Rwanda is practiced in ponds at altitudes from 1,300 m to 2,500 m. Air and water temperature are lower than those in other tropical countries where tilapia culture is typically practiced. These conditions require careful pond water management practices for tilapia culture to be successful. Results from experiments and rural harvests indicate that *Oreochromis niloticus* is superior to *Tilapia rendalli* and *O. macrochir* in Rwandan conditions.

Reproductive tendencies of *O. niloticus* are different from those seen elsewhere: age at first reproduction is higher, time before resumption of reproduction after restocking is longer, and number of fingerlings produced per surface area is less. Natural productivity measured in local ponds ranged from 40 to 210 kg/ha/year and net productivity in poorly managed ponds receiving inputs was generally less than 500 kg/ha/year. However, in well managed ponds, *O. niloticus* can show average growth of over 1.0 g/day and net productivity of 3,000 kg/ha/year.

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