



# PD/A CRSP EIGHTEENTH ANNUAL TECHNICAL REPORT

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## SEMI-INTENSIVE CULTURE OF TILAPIA IN BRACKISHWATER PONDS

*Ninth Work Plan, New Aquaculture Systems/New Species Research 4 (9NS4)  
Abstract*

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### ABSTRACT

This experiment was started in June and will be terminated in November 2000. The purposes of the experiment were to: 1) determine appropriate fertilization regimes in brackishwater ponds; 2) investigate nutritional value and digestibility of specific marine phytoplankton as food organisms to tilapia; and 3) exploit underutilized or abandoned shrimp ponds for tilapia production. Two fertilization regimes (28 kg N and 7 kg P ha<sup>-1</sup> wk<sup>-1</sup> and 28 kg N and 14 kg P ha<sup>-1</sup> wk<sup>-1</sup>) and three levels of salinity (10, 20, and 30‰) were tested by a 2 × 3 factorial design. Eighteen cement ponds (6 m<sup>2</sup>) were filled with 15 cm of soil and then flooded with water of differing salinities by diluting hypersaline water to the appropriate concentrations. Thai red tilapia fingerlings were stocked at 2 fish m<sup>-2</sup>. All ponds were fertilized weekly at the two rates using urea and triple superphosphate (TSP). Water levels will be maintained at 0.8 m depth, and salinity levels will be checked and adjusted weekly. Plankton composition will be assessed biweekly. Partial budgets will be calculated to estimate cost of inputs and value of fish crop.