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- Title:** Biological Nitrogen Fixation as a Source of Nitrogen Input in Fishponds
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- Abstract:** The potential input of nitrogen derived from natural biological fixation in water of fertilized tilapia grow-out ponds in Thailand was determined by the acetylene reduction technique for 12 ponds over a 15-month period. On average, nitrogen fixation ranged from undetectable levels of N to 105 $\mu\text{g/L/day}$ in the water column, compared with 200 $\mu\text{g/L/day}$ input of N from chicken manure loading at a rate of 500 kg/ha/week. Estimated total nitrogen fixation in fishponds during a 5-month grow-out cycle ranged from 8.8 to 85.7 kg N/ha. Nitrogen fixation primarily occurred in daylight; it was inhibited in the dark and suppressed by elevated ammonium concentrations present in pond water. Nitrogen-fixing blue-green algae commonly present in the pond water were *Anabaena*, *Cylindrospermum*, and *Nodularia*.

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