



# APPENDIX 9. SEVENTEENTH ANNUAL TECHNICAL REPORT CONTENTS

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## I. PRODUCTION OPTIMIZATION

### Pond Dynamics Research

- Pond Soil Characteristics and Dynamics of Soil Organic Matter and Nutrients (9PDR2)
- New Site Development and Characterization (8KR1)
- Effect of Mud Turbidity on Fertilization, and an Analysis of Techniques to Mitigate Turbidity Problems in Wet Season (8TR1)

### Feeds and Fertilizers

- Intensification of Tilapia Production: Effects of Feeding at Different Stocking Rates on Pond Water Quality (8HR1)
- Relative Contribution of Supplemental Feed and Inorganic Fertilizers in Semi-Intensive Tilapia Production (8KR3)
- Nutritional Contribution of Natural and Supplemental Foods for Nile Tilapia: Stable Carbon Isotope Analysis (8KR3A)
- Global Experiment: Optimization of Nitrogen Fertilization Rate in Freshwater Tilapia Production Ponds (8FFR1K)
- Global Experiment: Optimization of Nitrogen Fertilization Rate in Freshwater Tilapia Production Ponds during Cool Season (8FFR1T)
- Timing of the Onset of Supplemental Feeding of Tilapia in Ponds (9FFR4)

### Reproduction Control

- Methods for Androgenesis Techniques Applicable to Tilapia (8RCR1B)
- Detection of MT in Pond Water after Treatment with MT Food (8RCR3B)
- Strain Variations in Sex Ratio Inheritance (8KR2)
- Effect of Treatment Timing and Dose on Masculinization with Trenbolone Acetate (9RCR5A)

### Aquaculture Systems Modeling

- Aquaculture Pond Modeling for the Analysis of Environmental Impacts and Integration with Agriculture: Model Evaluation and Application to the Ecological Analysis of Integrated Aquaculture / Agriculture Systems (8ASMR1A)
- Aquaculture Pond Modeling for the Analysis of Environmental Impacts and Integration with Agriculture: Modeling of Temperature, Dissolved Oxygen, and Fish Growth Rate in Stratified Ponds Using Stochastic Input Variables (8ASMR1B)

### New Aquaculture Systems/New Species

- Culture of Mixed-Sex Nile Tilapia with Predatory Snakehead (9NS2)

## II. ENVIRONMENTAL EFFECTS

### Effluents and Pollution

- Estuarine Water Quality Monitoring and Estuarine Carrying Capacity (8HR2-1)
- Evaluation of Shrimp Farming Impacts in Golfo de Fonseca Region, Honduras (8HR2-2)
- Water Exchange to Rectify Low Dissolved Oxygen (8HR4)
- Use of Pond Effluents for Irrigation in an Integrated Crop / Aquaculture System (9ER1)
- Fate of Methyltestosterone in the Pond Environment: Detection of MT in Soil after Treatment with MT Food (9ER2A)
- Fate of Methyltestosterone in the Pond Environment: Detection of MT in Pond Soil from a CRSP Site (9ER2B)

## III. SOCIAL AND ECONOMIC ASPECTS

### Marketing and Economic Analysis

- Nonparametric Estimation of Returns to Investment in Honduras Shrimp Research (8MEAR1)
- Risk Analysis of Shrimp Farming in Honduras (8MEAR2)
- Development of Central American Markets for Tilapia Produced in the Region (9MEAR3)
- Economic and Social Returns to Technology and Investment in Thailand Economic and Social Returns to Technology and Investment in Thailand (9MEAR4)

**Adoption/Diffusion**

- Fish Culture in the Peruvian Amazon: Producer Perceptions and Practices in Three River Systems (8ADR1-1)
- Sources of Technical Assistance for Fish Farmers in the Peruvian Amazon (8ADR1-2)
- Impacts of Integrated Fish Culture on Resource-Limited Farms in Guatemala and Panama: An Ex-Post Evaluation (8ADR2)
- Regional Outreach in Africa (8KR5)
- Aquaculture Training for Kenyan Fisheries Officers and University Students (9ADR3)
- Establishment of Companion Sites in the Africa Region (9ADR4)
- Regional Outreach in Africa (9ADR5)

**Decision Support Systems**

- Enhancing the POND® Decision Support System for Economics, Education, and Extension (9DSSR3)