



PD/A CRSP SIXTEENTH ANNUAL TECHNICAL REPORT

DETECTION OF MT IN POND WATER AFTER TREATMENT WITH MT FOOD

*Eighth Work Plan, Reproduction Control Research 3B (RCR3B)
Abstract*

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ABSTRACT

The objective of this study is to determine if 17α -methyltestosterone (MT) can be detected in the treatment environment and if so, for how long after treatment. The field aspect of this study has begun. Nile tilapia fry are stocked in two 2-m² hapas at 2,000 hapa⁻¹. The hapas are located approximately 50 cm apart in a 400-m² earthen pond. One group is receiving a commercial trout ration that does not contain MT; the other receives a feed containing 60 mg MT kg⁻¹ of feed. The fish will be cultured 28 days; after harvest, growth and survival will be determined and then in the same hapas the fish will be reared to sexual maturity and fed a non-hormone-treated feed. Preliminary soil samples were collected in 1997 and furnished to Dr. Fitzpatrick for MT assay and refinement of sampling protocols. Assay of these soils, which have had no history of exposure to MT, indicated levels of 269.3 to 1,553.3 pg g⁻¹ of soil, suggesting that the assay for MT may cross-react with natural products in the soils. As part of the current field study, samples of water are being collected during the treatment period from within each hapa and at 2, 5, and 10 m from the hapas. Additionally, soil samples are being collected from directly under the hapas and at 2, 5, and 10 m from the hapas. These samples are frozen soon after collection for later assay.

