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Reproductive performance and sex ratio of Nile tilapia (*Oreochromis niloticus*) fed dietary *Aspilia mossambicensis* and *Azadirachta indica* leaf powder

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Farming of mixed sex of Nile tilapia, *Oreochromis niloticus* is challenged by prolific breeding which leads to slow growth due to competition for food, space and oxygen. Synthetic hormones have been used to produce all-males stock which are favored than females due to their ability to grow fast. However, hormones are expensive and inaccessible for most small scale farmers. Therefore, this study investigated two medicinal plants *Aspilia mossambicensis* and *Azadirachta indica* potential to control reproductive performance and sex ratio of *O. niloticus*. To assess reproductive performance, juveniles (41.5 ± 3.1 g mean weight) were fed experimental diets contained 1.0, 2.0, 4.0 and 8.0 g of *A. indica* or *A. mossambicensis* leaf powder per kg of control diet (25% CP) at a ratio of 3% body weight for 90 days. For sex reversal experiment, two weeks old hatchlings were fed diets contained 40 grams of *A. indica* or *A. mossambicensis* powder per kg of control diet for 60 days and then followed by control feed for the remaining 90 days at 20% of their body weight. Feeding was done two times a day (10.00 and 17.00 hours). Results revealed that *A. indica* and *A. mossambicensis* significantly decreased reproductive performance and altered sex ratio in favor of males. These findings indicate that *A. indica* and *A. mossambicensis* can control prolific breeding as well as alter sex ratio of *O. niloticus*.

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