

## **Abstract.**

- The present study used a Batch Reactor to obtain an organic fertilizer by the biodegradation process of mangrove swamp with bovine manure and water
- To evaluate the development of the biodegradation process we determine the increase of Total Organic Nitrogen in different periods of time under the following work conditions: Temperature 15 – 20, pH 6.8 – 7 and a sample concentration of 49800 grams.
- Once obtained the organic fertilizer it was dose to be applied into one cubic meter pools under the same conditions of work for industrial pools.
- After six days from the application, results showed that great amounts of phytoplankton was generated, most of it good for shrimps. Therefore the organic fertilizer adjust perfectly.
- To industrial shrimp production conditions, saving up to one hundred dollars per ha. On every cicle of shrimp productions.
- The appropriated dose of the organic fertilizer is nine grams per square meter.