

NATIONAL SEMINAR ON BIODIVERSITY AND CONSERVATION: PRESENT STATUS AND FUTURE PERSPECTIVES

12-13th February, 2015

ABSTRACT



Organized By



**Department of Zoology,
St. Xavier's College, (Autonomous)**

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(Re-accredited by NAAC "A" Grade with a CGPA of 3.50)

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STUDIES ON TURNING FISH WASTE INTO GARDENING FERTILIZER

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ABSTRACT

The fish consumption per person has doubled on a worldwide basis and hence the fishery waste on land has also increased. The discarding of fish waste creates environmental problems as well as disposal problems. The common practice of disposing the residue of the seafood industry into natural open bodies of water and landfills has on odor problems, floating debris and visible surface slick, attractants of undesirable predator species increased turbidity and dissolved oxygen depression of bodies of water. Conventional methods for reutilization of fish waste are animal feeds, and composting fertilizer. Composting fish waste is a relatively new and an environmentally sound alternative to disposing of fish waste. It is economical, odorless and a biological beneficial practice for sea food operation. The reutilization of fish waste as liquid fertilizer was particularly economical alternative at present, and plant- scale production would be necessary for commercialization.

Fish compost can be prepared with fish wastes such as tissues, bones and scales mixed with three different substrates such as sugar, jaggery and palm jaggery in 1:1 ratio. Fish compost characters such as odour, physical state, weight, pH and protein content were estimated. Fertilizer value was estimated by analyzing the blooming effect and tender leaf formation of rose plant. After 48 days, bad odour gradually turned into fruity odour in fish waste mixed with cane sugar, cane jaggery and palm jaggery. They bone and scales of fish became degraded and turned into liquid state. The blooming of flower in the rose plant was increased after applying liquid fertilizer. Therefore, there is a need to find ecologically acceptable means for reutilization of these wastes.

Key words: Fish waste, composting, liquid fertilizer.