

**J.J. College of Arts and Science (Autonomous)
J.J. Nagar, Sivapuram Post, Pudukkottai**

Department of Microbiology

Experimental Learning

Date: 29.11.2021

Panchagavya Preparation

Students of I PG Microbiology took an initiative to prepare Panchagavya, a natural organic fertilizer from direct and derived cow products. As the name suggests it uses five products from cow and few more natural ingredients for the whole fermentation process. The Main ingredients are Fresh Cow Dung, Cow Urine, Cow Milk boiled and cooled, Fresh Cow Curd, Cow Ghee, Well ripened Bananas, Black organic jiggery, Fresh Tender coconut water and Fresh Grape Juice. The whole fermentation process taken around 21 days. The potential benefits of this organic fertilizer are keeps pests away from your plants, develop bigger and better leaves and stem, plant canopy and root system becomes denser and yield will be better in quantity as well as in quality.

The main goal of this project to help farmers about the preparation of this Panchagavya recipe in a perfect ratio. In addition, to create the awareness about the organic farming, use of organic fertilizer etc.

Preparation of Panchagavya



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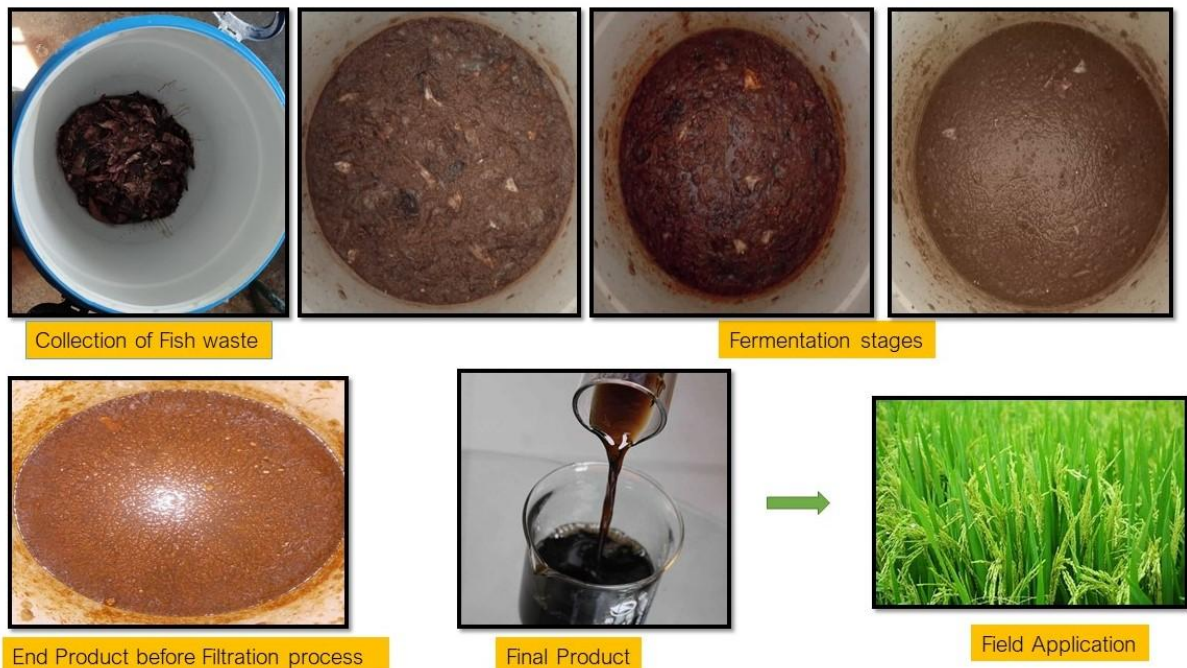
Experimental Learning


Date: 01.12.2021

Fish Amino Acid Preparation


This is one of the excellent project from the Students of I PG Microbiology, conversion of organic waste into fertilizer. Every town has fish markets and they produce more than 60% by-products as waste, which includes skin, head, viscera, trimmings, liver, frames, bones, and roes. These by-product wastes contain good amount of protein rich material that are normally processed into low market-value products, such as animal feed, fishmeal and fertilizer. Fish protein hydrolysates are generally enters into the enzymatic conversion of fish proteins into smaller peptides, which normally contain 2–20 amino acids. These amino acids mixture are used as Biofertilizer to enhance crop production. Students collected the fish waste and processed with papaya sap and jaggery. The whole fermentation process taken around 21 days. The potential benefits of this organic fertilizer are Amino acids that are continuously to increase yield and improve taste and fragrance.

The main goal of this project to help farmers about the preparation of this fish amino acid recipe in a perfect ratio. In addition, to create the awareness about the organic farming, use of organic fertilizer etc.




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Experimental Learning

Date: 18.12.2021

Preparation of Brahmastra Organic Fertilizer

This is an admirable project from I PG students, preparation of Brahmastra, natural insecticide/ pesticide for bigger pests and caterpillar. The main ingredients for preparations of Brahmastra are cow urine, castor leaves, Indian beech leaves, mango leaves and Neem leaves. The collected leaves are grinded in to a fine paste, mixed with cow urine, and left for 3 days fermentation process to get the final product. The main benefits of this insecticide is remove all kinds of pests, insects and increase the richness of the soil.

The main goal of this project to help farmers about the preparation of this Brahmastra recipe in a perfect ratio. In addition, to create the awareness about the organic farming, use of organic fertilizer and pesticides.




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