

# Performance Evaluation of Improvised Organic Fertilizers in the Yield of Cash Crops: Its Economic Contribution to Farmers in Tawi-Tawi Province Southern Philippines

Edwin M. Puhagan

Tawi-Tawi Regional Agricultural College, Philippines

## Abstract

Fertilizer pollution and contamination in soil can go on to severely impact plants, animals and eventually humans which totally destroys ecological diversity. Bioremediation is an effective, efficient and increasingly popular method of removing contaminants from polluted soil. This study contemplates improvised organic fertilizers as one bioremediation process to help regain soil fertility and ecological stability of the farming environment. However, the possibility of using improvised organic fertilisers which are known to bring together essential nutrients to the soil has not been heavily researched though this solution holds a lot of potentials as it could solve two significant global issues (pollution and food waste). Sea Urchins Spines, Banana Peels, Papaya Peels Extract and Fish remains are common food wastes that commonly serve no further purpose once the food is consumed. This study gives feedback on the importance of the improvised organic fertilizers as it enhances economic and ecological contribution to both farmers and farming. These were measured on the yields of common crops and incomes of the farmers. Four different kinds of cash crop used in this experimental study to include peanut, bellpepper and string beans and corn distributed to four different concentrations of improvised organic fertilizers such as "Concentrated Mixture of Ripe Banana Peels and Papaya Extract for peanut, Concentrated Mixture of Triturated Sea Urchin Spines and Basil Extract for Bellpepper, Concentrated mixture of Algae and Wild Basil Extract for Corn, and Concentrated mixture of FFAA and Seaweed Extract for String beans". An RCBD (Randomised Complete Block Design) was used to analyse the data where it resulted good responses of crops in terms of yield and the income of the local farmers.



## Biography:

Edwin M. Puhagan, since joining the Tawi-Tawi Regional Agricultural College, she has been involved with studies related to agriculture and the related fields in the province. Before joining Institution, Dr. Puhagan merged himself in Locomotive

impulses for environment protection and management. Since 2008 Dr. Puhagan worked as a Dean of Student Affairs, as Director for Special concerns, Faculty of Agriculture Department. He currently the Director for Production of the college.



## Speaker Publications:

1. Performance evaluation of improvised organic fertilizers in the yield of cash crops: Its economic contribution to farmers in Tawi-Tawi province southern Philippines. *Advances in Crop Science and Technology* 07(02): 2329-8863.2019.

[15<sup>th</sup> International Conference on Agriculture & Horticulture](#); Webinar- August 24-25, 2020.

## Abstract Citation:

Edwin M. Puhagan, Performance Evaluation of Improvised Organic Fertilizers in the Yield of Cash Crops: Its Economic Contribution to Farmers in Tawi-Tawi Province Southern Philippines, *Agri* 2020, 15<sup>th</sup> International Conference on Agriculture & Horticulture; Webinar- August 24-25, 2020

(<https://agriculture-horticulture.conferenceseries.com/abstract/2020/performance-evaluation-of-improvised-organic-fertilizers-in-the-yield-of-cash-crops-its-economic-contribution-to-farmers-in-tawi-tawi-province-southern-philippines>)