ASSESSMENT OF POULTRY WASTE PRODUCTION, MANAGEMENT AND RESOURCE RECOVERY PRACTICES

JOHN ERWIN P. RIVERA

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ABSTRACT

JOHN ERWIN P. RIVERA, Department of Agricultural and Biosystems Engineering, College of Engineering, Central Luzon State University, Science City of Muñoz, Nueva Ecija, **MAY 2023. ASSESSMENT OF POULTRY WASTE PRODUCTION, MANAGEMENT, AND RESOURCE RECOVERY PRACTICES.**

Adviser: **ELIZA E. CAMASO, M.Sc.**

As the poultry industry grows, large amounts of poultry waste are generated, and environmental issues become increasingly severe. It deals with several waste management concerns, including substantial waste management challenges such as manure disposal, water and air pollution, odor disturbance, and insect outbreaks.

This study evaluates the volume of poultry waste generated in the Philippines. It was started by collecting data from the Philippine Statistics Authority using the chicken and duck situation reports. ArcGIS 10.5 software was used in analyzing the volume of produced poultry waste in terms of the location and time, and descriptive statistics were used to calculate the percentage and volume of distribution or utilization of the poultry waste in terms of treatment and disposal method.

The spatial analysis and distribution of poultry waste produced in the Philippines are demonstrated using Geographic Information System mapping. According to the map, Region 3 produced the highest total chicken waste, followed by Region 4A and Region 10. On the other hand, Region 3 also generates the most duck waste in the Philippines, followed by Region 12 and Region 6.

The number of poultry feathers disposed of demonstrates that a large portion of the waste feather was buried, accounting for an average of 82.2 thousand metric tons. In

contrast, regarding the volume of distribution and utilization of poultry manure, it is clear that most of it were disposed of in open dumping with 64.6 thousand metric tons.

Keywords: poultry waste; GIS mapping; waste management

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