

ABSTRACT

Rice (*Oryza sativa*) is a staple food for the Indonesian population, and its productivity requires continuous improvement. Recently, rice production levels in Indonesia, including in Central Aceh, have fluctuated. One cause of rice production fluctuations is fertilization that does not match plant needs. Improper fertilizer application, both in type, dosage, and timing, can inhibit plant growth, resulting in unstable rice yields. This study aims to determine the appropriate N, P, and K fertilization recommendations for rice plants in Pegasing District, Central Aceh Regency. A survey method was employed in this study. Ten paddy soil samples were collected from ten villages in Pegasing District to analyze total N, available P, and exchangeable K levels. The levels of these elements served as the basis for determining the recommended N, P, and K fertilizer dosages. The results of the soil analysis showed a moderate level of total N, a very low to moderate level of available P, and a low to moderate level of exchangeable K. Meanwhile, analysis of plant tissue shows that Nitrogen levels are low criteria, Phosphorus levels are low to excessive criteria, and Potassium levels are low criteria.

Keywords : fertilizer dosage, fertilizer type, nutrient status

