

## ABSTRACT

The palm oil commodity is Indonesia's largest agricultural sector leading export product, Indonesia is the world's largest palm oil producer with high competitiveness. Efforts to increase soil fertility can be done by fertilizing. Solid decanter solid waste contains nutrients N (3.52%), P (1.97%), K (0.33%) and Mg (0.49%). The purpose of this study was to determine the effect of giving solid decanter solid waste npk fertilizer and also the interaction between these fertilizers on the growth of oil palm seedlings in the pre nursery phase. This research was conducted in Paloh Lada village, Dewantara sub-district, North Aceh district, and in the Agroecotechnology laboratory, Faculty of Agriculture, Malikussaleh University, North Aceh from March 2024 to June 2024. This study used a factorial group randomized design method consisting of 4 levels, namely S0 = 0 g/polybag, S1 = 100 g/polybag, S2 = 200 g/polybag, S3 = 300 g/polybag. The second factor consists of 3 levels, namely N0 = 0 g/polybag, N1 = 2 g/polybag, N2 = 3 g/polybag. NPK fertilization affects the age of plant height, number of leaves, stem diameter, leaf chlorophyll at the age of 5,6,7,8,9,10,11,12 MST, root length, fresh weight, dry weight of plants with the best dose of N1 2 g/polybag. There is an interaction effect of solid decanter solid waste and npk fertilizer on the number of leaves, stem diameter and fresh weight of plants.

Keywords; pre nursery, solid decanter, NPK fertilizer