

## ABSTRACT

Oil palm (*Elaeis guineensis* jacq.) is one of Indonesia's main plantation. Lack of one of the nutrients can cause plants to show symptoms of deficiency which will result in inhibition of vegetative growth and decreased plant production. Cattle urine or biourin is one of the sources that can be used as an organic material to replace inorganic fertilizers. Planting media is the main component when conducting cultivation activities. The purpose of this research is to see the growth response of oil palm seedlings due to the provision of cow biourin and a combination of planting media.

This research was conducted from February to June 2025. This research used the Randomized Block Design method. There are two factors that are tried, namely the first factor is cow biourin and the second factor is the combination of planting media. The first factor is cow biourin consisting of 4 levels, namely: B0 (0 ml/l water), B1 (65 ml/l water), B2 (95 ml/l water), B3 (125 ml/l water). The second factor is the combination of planting media, namely: K0 (topsoil), K1 (topsoil + biochar (2;1)), K2 (topsoil + cocopeat (2;1)).

The treatment of cow biourin is able to increase the growth of oil palm seedlings in the pre nursery, which is shown in the increase in stem diameter 60 HST, number of leaves 30 HST and leaf chlorophyll 60-90 HST. The 95 ml/l water (B2) treatment was the best treatment. The treatment of the combination of planting media on the growth of oil palm seedlings in the pre-nursery which is shown in the increase in plant height 45-90 HST, stem diameter 45-90 HST, leaf area 45 and 90 HST, leaf chlorophyll 75 and 90 HST with the best results found in the combination of topsoil + cocopeat soil planting media (K2) is the best treatment. There was no interaction between the treatment of cow biourin and the combination of planting media.

Keywor-ds: Oil Palm, Cow Biourine, Topsoil, Cocopeat, Biochar