



INITIAL DEVELOPMENT OF *Eucalyptus grandis* (EUCALYPTUS) IN FIELD BENEFITED WITH BIOCHAR IN SINOP / MT

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The exploration and use of native wood has faced major limitations, especially when dealing with wood from Amazonian forests, is directly correlated to the irreversible loss of biodiversity and timber stocks. These factors reveal the necessity of studies and expansion of plantations with forest species in this region, fact also presented in the state of Mato Grosso/Brasil. When considering the soils of the Amazon, we can consider that the addition of soil conditioners are important to give further support to these plantations, in order to meet the physical and chemical limitations that these soils may present. The use of soil conditioners is a desirable practice and the search for new materials must be undertaken with a view to obtain soil with beneficial features of the phase of plantation as well as its development over time in the field. The use of biochar, has demonstrated in many studies, benefits to agricultural and forestry plantations when applied to the soil. This is a residual source material / organic by-product (sawdust, bark, crop residues, among others) that when processed, via pyrolysis, generates a soil conditioner that is often able to bring improvements to the physical properties, chemical biological and agricultural land. In this context, this study aimed to monitor the development of *Eucalyptus grandis* (eucalyptus) in the field benefited with biochar after planting. The experiment was conducted in Sinop - MT, experimental field of Embrapa Agrosilvopastoral. The seedlings that has been used was the H13 clones, they were submitted to six treatments. The treatments were: seedlings without biochar in substrate + control; seedlings with biochar in substrate + control; seedlings without biochar in substrate + activated biochar in soil; seedlings with biochar in substrate + activated biochar in soil; seedlings without biochar in substrate + biochar in soil; seedlings with biochar in substrate + biochar in soil. The application of biochar in soil was taken 75 cm on each side of the plant along the row. After applying, the biochar was incorporated into the soil. Spacing was 3.5 m between rows and 3.5 m between plants. Was evaluated plant height at 30, 60, 110 and 150 days after planting and the stem diameter at 30, 60 and 150 days after planting. Mean test was conducted and until the evaluation period no statistical difference in plant development was observed between the different treatments, both for height and stem diameter. It is expected that with the assessment that has been conducted throughout the dry season, these differences begin to be evidenced. It should also be emphasized that many papers have shown the responses to the application of biochar after the first year, which can be a key factor for this study since it is a perennial crop species.

Keywords: Biocarvão, Byproducts, Reforestation.

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