

THE EFFECT OF DIFFERENT MIXTURE AND CONCENTRATION OF HERBICIDE FOR CONTROLLING WEEDS IN NEWLY HARVESTED AREA OF *Acacia mangium* PLANTATION

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ABSTRACT

This study is about the effect of different mixture and concentration of herbicide for controlling weeds in newly harvesting area of *Acacia mangium* plantation. The herbicide used is glyphosate, ally and sterane. The objective of this research is to determine the better mixtures of the three herbicides with different concentration of application in controlling the weeds in newly harvested *Acacia mangium* plantation. This research compares the effectiveness of the mixture of the herbicides and decides on which concentration of each of the mixed herbicide can give a good control for weeds in the newly harvested Acacia plantation and from the mixture that give good control, the price for each of the mixture us calculated and compared. In this research, glyphosate is mixed with either ally or starane at different concentration and applied to Acacia plantation area that has just been harvested. There are 7 treatments including control in this research. The method that has been used in this research is Randomized Complete Design and replicated 4 times in the same area. The application of the herbicide is at the same day with the same person applying the herbicide throughout the plot. Data is collected before and after the application of the herbicide. The data collection after the application of the herbicide is done once every week for 9 weeks. Data is collected according to the percentage of the remaining weeds that is > 75%, 50-75%, 25-50%, and < 25%. From the data analysis, there is significant difference between the treatments ($p < 0.05$). Where, Treatment 2 to Treatment 7 shows a good control over the weeds population with the lowest cost is Treatment 5, RM 17.99/ ha. According to the effectiveness toward weeds control and lower cost, Treatment 5 is the best treatment compared to the other treatment for controlling weeds in newly harvested *Acacia mangium* plantation.