

**ALLELOPATHIC EFFECTS OF MANGO LEAVES ON WOODY
BORRERIA (*Hedyotis verticillata* L.)**

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APPROVAL SHEET

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ABSTRACT

ALLELOPATHIC EFFECTS OF MANGO LEAVES ON WOODY BORRERIA (*HEDYOTIS VERTICILLATA*)

Herbicide has known to be the most effective and cheapest option for removing the intruders in plantation. Woody borreria has shown the resistance towards many types of herbicides. This making this weed can grow all over the place in the plantation and the area surrounding it. Allelopathy is a natural chemical process made by many types of plants. It can be stimulating or inhibiting. Mango leaves is always thrown away or always been left out. After some research, mango leaves have potential to produce enough allelochemicals to inhibit the germination of weeds. Woody borreria seeds were applied with mango leaves treatments which are in extraction form and powder form. A total of 30 woody borreria seeds were applied with 0, 20, 40, 60, 80 and 100% v/v mango extracts. 0, 20, 40, 60, 80 and 100% w/v of mango leaves powder also applied at another 30 woody borreria seeds. Each seed only obtain one types of treatment. The result shows inhibition of the seed germination only at 60% and above. Below that, the allelochemicals from the mango leaves accidentally germinate the seeds even better than 0% treatment. This shows that allelochemical act upon the concentration. The FT-IR analysis has been done and all the cunctional groups of allelochemical compounds had been found. These findings suggests that mango leaves need to be in high concentration to act as natural herbicide.