

EFFECT OF LEUCAENA (*Leucaena leucocephala* (Lam) De Wit) OVER THE WEED POPULATION ON MAIZE (*Zea mays* L.) CROP.

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Leucaena is reported as a protein source for animal food and recovery of degraded areas. The use of *leucaena* shoot incorporated or as mulch on soil can liberate toxic substances originated from its secondary metabolism, such as mimosine (β -[N-(3-hydroxi-4-oxopyridil)]- α -aminopropionic acid), which has the ability to affect the growth capacity of other plants. The objective of this study is to evaluate the influence of *leucaena* over weeds present in maize crop. Experiment was drawn in random blocks with four repetitions, using 3 L vases filled with soil and carried out in green house. Maize was planted 5, 10, 20 and 40 days after addition of 25 t/ha of *leucaena* shoot incorporated or as mulch on soil. In each treatment a control (no *leucaena*) was used and the following data were evaluated: 1) weed counting and biomass; 2) maize toxicity (EWRC), height and biomass. Statistics analysis of weed data has shown reduction of large leaves (60 %) and gramineae (58 %) with *leucaena* as mulch, while with incorporated *leucaena* only large leaves reduction (57 %) was observed, as compared to control. On the other hand, data revealed no toxicity effect on maize. Besides, *leucaena* as mulch produced larger maize biomass yield (21 %), in comparison to control. Results indicate an allelopathic behavior of *leucaena* against weed in maize crop and, therefore, its potential as a natural herbicide.