ALLELOPATHIC INTERACTION IN THE DEVELOPMENT OF LACTUCA SATIVA SEEDS SUBMITTED TO THE AQUEOUS EXTRACT OF AZADIRACHTA INDICA A. JUS.

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RESUMO

Azadirachta indica A.Juss is an exotic species which has efficiency in the control of pests and may have allelopathic effect from secondary metabolites. These metabolites were developed by plants throughout their genetic improvement and their release to the environment can determine the positive or harmful effects, as well as a model of succession conditioned to pre-existing plants. In the tests to verify the presence of these compounds is recommended to use species that are sensitive as *Lactuca sativa*, indicating resistance/tolerance to allelochemicals. In order to test its behavior, the present work aimed to verify the allelopathic potential of the aqueous extract of fresh Neem leaves on the germination and initial growth of seedlings of crisp lettuce cultivar Grand Rapids TBR. The extract was obtained by grinding 250g/L of fresh Neem leaves, considered as raw extract 100% and the others diluted in distilled water in concentrations of 75, 50, 25, 10% besides the control (only water). The seeds were sown in plastic trays of 200 cells in a greenhouse for 12 days. Later the following features were measured: Percentage of Emergence (PE), Speed of Emergence Index (SSEI), Length of the aerial part (LPA) and Length of the Root System (RSC). It was observed that the aqueous extract of neem in different concentrations, did not interfere in the process of germination, but negatively affected the characteristics related to the initial development of seedlings, especially in higher concentrations (75 and 100%). The growth of the plant has more sensitivity to allelochemicals than germination, due to the action of bonds in the membranes of the receiving plant and / or penetration of cells, in a way that alter its metabolism. Thus, high concentrations decrease the growth parameters, and in lower concentrations help the germination process, besides presenting insecticidal potential.

PALAVRAS-CHAVE: alelopatia, melhoramento vegetal, estresse abiotico

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