

## Alterations produced by the eudesmanolide-1b-hydroxialantolactone isolated of *Dinoseris salicifolia* Griseb. on the germination and seedlings of saetilla (*Bidens pilosa* L.)

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### Abstract

The objective of this work was to determine the effect of the ivasperin (eudesmanolide-1b-hydroxialantolactone) isolated of *Dinoseris salicifolia* Griseb (*Asteraceae*) on the germinative process and seedling growth of Hairy Beggarticks (*Bidens pilosa* L., *Asteraceae*). It was determined germination percentage, radicle and hipocotyl length, conductivity of cellular eflux of radicle and mitotic index. Seeds began to germinate with different concentrations of the ivasperin (300, 600 and 1000 ppm) using water and chloroform as control. Results show a marked influence of the ivasperin in radicle and hipocotyl growth, with significative differences among the control of all treatments. A decrease in the conductivity of cellular eflux of radicle as concentration of ivasperin increases was noted, with significant differences between 300 and 1000 ppm and between water and 1000 ppm. In addition, it was observed a decrease in mitotic index with statistic signification between control and 600 and 1000 ppm. So, the ivasperin affects the normal growth of radicles with a modification in the membrane permeability and in the rhythm of cellular division.

**Key words:** allelopathy, conductivity, germination, ivasperin, mitotic index.

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