TOXICOLOGICAL EVALUATION OF THE ANTI-INFLAMMATORY DRUG NIMESULIDE IN SEEDS

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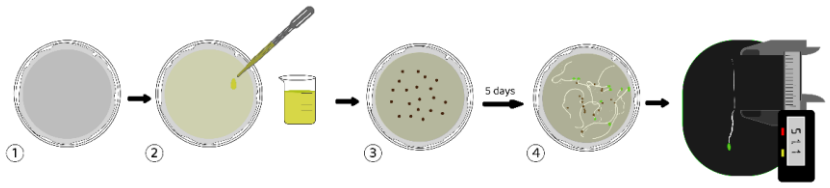
INTRODUCTION & AIM

Nimesulide, an anti-inflammatory drug recently linked to liver problems and banned in some European countries, is on the list of most consumed drugs in Brazil. The objective was to evaluate the toxicity of nimesulide through phytotoxicity tests with lettuce, mustard and arugula seeds.

MATERIAL AND METHODS

In a sterile Petri dish, filter paper soaked with 4mL of the stock solution contaminated with the commercial drug EMS® nimesulide was placed, following the concentrations 200; 340; 578; 982 and 1670 mgNIM/L. with 20 seeds in each quadruplicate were exposed for 5 days. Figure 1 shows the schematics of the experiment.

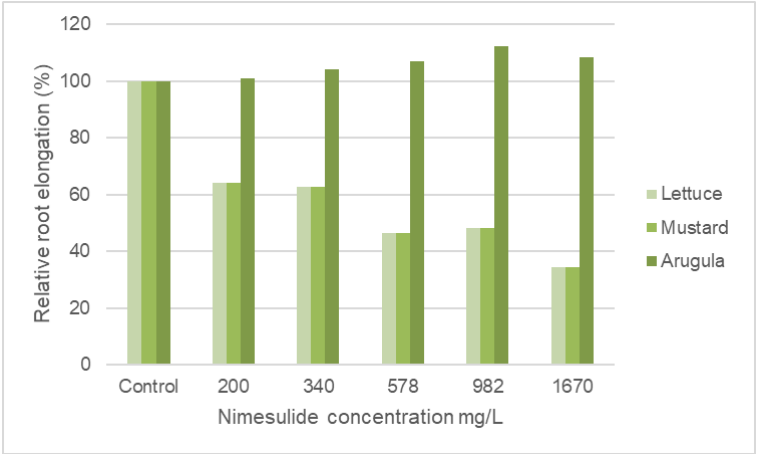
Figure 1. Schematic diagram of the phytotoxicity test with lettuce, mustard and arugula seeds



RESULTS

The relative root elongation compared to the control as exposed to nimesulide is shown in Figure 2.

Figure 2. The relative root elongation of seeds.



The results showed that lettuce and mustard seeds have close sensitivity when exposed to Nimesulide, while arugula showed no sensitivity.

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