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EVALUATION OF THE TOXICITY AGAINST *Artemia salina* OF THE FATTY ACIDS METHYL ESTERS (FAME) FROM *Annona cornifolia* SEEDS

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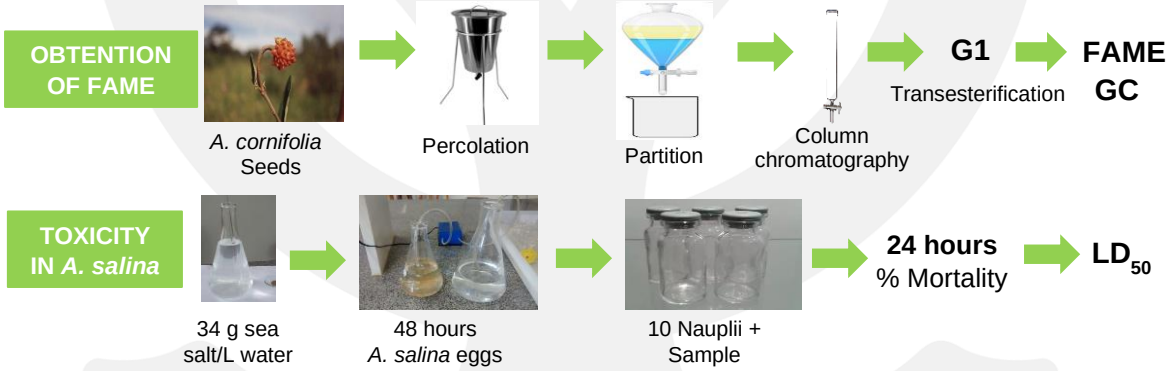
1. INTRODUCTION

Several species of the *Annona* genus, belonging to the Annonaceae family, provide edible fruits, some of which are highly appreciated in Brazil, such as *Annona crassiflora*, *A. cherimola*, *A. squamosa* and *A. muricata*. *Annona cornifolia* A. St. -Hil. is a small evergreen tree found in the Brazilian cerrado, and its green fruits are popularly used to treat ulcers [1]. The objective of this work was to evaluate the toxicity of fatty acid methyl esters (FAME) against *Artemia salina*.

2. METHODS



3. RESULTS

The oleic (51.46%) and linoleic (19.12%) acids were detected as the main unsaturated fatty acids in *A. cornifolia*. The palmitic acid was the most abundant among the saturated fatty acids (16.92%) identified, followed by stearic (5.56%) and myristic (0.17%) acids [2]. In the evaluation of toxicity against *A. salina* larvae, the FAME of *A. cornifolia* exhibited good larvicidal activity with a lethal dose (LD_{50}) value of 8.77 μg/mL. The sample had a LD_{50} less than 1000 μg/mL, that according to Meyer et al. [3] indicate that this substance is toxic. The toxicity studies in *A. salina* are important, because the results can be extrapolated to other activities. Substances with LD_{50} < 145 μg/mL against *A. salina* may have antitumor activity [4]. This toxicity result for FAME was important because it indicated a possible antitumor activity, which was confirmed with further tests [5].

4. CONCLUSION

The FAME of *A. cornifolia* seeds can be considered toxic, indicating a possible antitumor activity [5].

5. REFERENCES

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