



**EVALUATION OF SECONDARY METABOLITES OF THE
HYDROALCOHOLIC EXTRACT OF ILEX PARAGUARIENSIS PLANTED IN
REFORESTATION FOREST AND OPEN SKY**

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INTRODUCTION

Erva mate in Spanish Yerba Mate (*Ilex paraguariensis*) is a native plant of the subtropical regions of South America, composed of secondary metabolites that vary according to climate, cultivation, management, and origin of the plant, and which influences the reduction of damage to human health (PICCOLI, 2017). Therefore, the objective of this study is to evaluate Erva mate extracts grown in the open air and reforestation with the presence of tannins, saponins, and total phenols.

MATERIAL AND METHODS

To carry out this study, it was started with the preparation of the hydroalcoholic extract of samples of *Ilex paraguariensis* leaves that were cultivated in the open air and on reforestation land by the maceration method, after which the extract was chemically characterized for the presence of tannins (colorimetric assay) and saponins (foaming), according to the methodology described by (SBF, 2009) and the evaluation of total phenols, according to the methodology described by (SOMENSI, 2015).

RESULTS

It was possible to evaluate the presence of tannins in extracts cultivated in open sky and in reforestation, in which both were hydrolyzed and condensed. Regarding the

saponin test, in the analysis of the extract grown in the open

air, three samples have not reacted among the ten analyzed. In the extract

cultivated in reforestation land, it was identified that all samples reacted to

the presence of saponins. When it comes to the phenols test, the

extract grown in the open air showed better results.

CONCLUSIONS

Therefore, with the accomplishment of the researches, it is evident that Erva mate is a plant rich in bioactive properties, in addition to having an important antimicrobial and anti-inflammatory activity.

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