

***In vitro* activity of the *Caesalpinia ferrea* extract in the egg hatch of gastrointestinal nematodes of small ruminant - Salles H.O.¹, Nascimento M.T.S.C.¹, Cavalcante A.C.R.¹, Vieira L.S.¹, Andrade L.B.S.²**

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Gastrointestinal nematode infection is one of the main problems in small ruminant livestock systems worldwide due to the development of anthelmintic resistance by the parasites. The aim of this study was to find an alternative to break the nematode life cycle using protein extracts from *Caesalpinia ferrea* Mart. (Caesalpinioideae), a Brazilian native plant known as pau-ferro or jucá. Three diluents (water, 150 mM NaCl and 25 mM Tris-HCl, pH 7.5) were used to obtain proteins from *C. ferrea* seeds, in proportion of 1:10 (w/v). Protein extractions with each diluent resulted in mean values of 2.21, 2.43 and 4.56 mg/mL in water, 150 mM NaCl and 25 mM Tris-HCl 7.5 pH extracts, respectively. Tris-HCl group resulted in yields significantly different than the other methods ($p < 0.05$, *t*-test). Egg hatch assay results were 27.02%, 3.29% and 73.63% using the three diluents extracts, respectively. Control group results were 87.06%, 88.53% and 89.05% in the same treatment order as previously mentioned. Saline extracts exhibited a potent ovicidal activity and was the most efficient method to obtain bioactive molecules from *C. ferrea* seeds.

Key-words: *Caesalpinia ferrea* Mart., nematodes, protein, small ruminants

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