



Antifeedant activity of ethanolic extract from *Flourensia oolepis* and isolation of pinocembrin as its active principle compound

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RESUMEN

The ethanolic extract from *Flourensia oolepis* aerial parts showed strong antifeedant activity against the pest larvae, *Epilachna paenulata*, with an antifeedant index (AI%) of 99.1% at 100 µg/cm². Based on chromatographic fractionation of the extract, guided by bioassays on *E. paenulata*, the flavanone pinocembrin (1) was isolated as the most active principle. In a choice assay, compound 1 showed strong antifeedant activity against *E. paenulata*, *Xanthogaleruca luteola* and *Spodoptera frugiperda* with an AI% of 90, 94 and 91% ($p < 0.01$) respectively, at 50 µg/cm². The dosages necessary for 50% feeding inhibition of the insects (ED₅₀) were 7.98, 6.13 and 8.86 µg/cm², respectively. The feeding inhibitory activity of 1 against *E. paenulata* was compared with the activity of other structurally related flavonoids like naringenin, which was inactive up to 100 µg/cm², catechin which was nearly 6 times less active than 1, and quercetin which was equally active as 1. The effect of these on the feeding behavior of *E. paenulata* was also studied.

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