

Title Composition and antifungal activity of the essential oil of the brazilian *Chenopodium ambrosioides* L.

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Abstract

Antifungal activity and the chemical composition of *Chenopodium ambrosioides* L. essential oil (EO) are reported. EO was evaluated at 0.3, 0.1 and 0.05% against *Aspergillus flavus*, *A. Glaucus*, *A. niger*, *A. ochraceous*, *Colletotrichum gloesporioides*, *C. musae*, *Fusarium osysporum* and *F. semitectum*. The growth of all the fungi was inhibited completely at 0.3%, and by 90 to 100% at 0.1%. Thirteen compounds were identified in the EO by gas chromatography and gas chromatography coupled to mass spectrometry with (Z)-ascaridole (61.4%) and (E)-ascaridole (18.6) being the principal components. The composition of our EO was completely different from that reported previously from Brazil and several other countries. Bioautography-TYC of the EO to separate the principal fungitoxic fractions yielded only one component, which completely inhibited the growth of all test-fungi at 0.1%. The (%) composition of this fraction was p-cymene (25.4), (Z)-ascaridole (44.4) and (E)-ascaridole (30.2).