

Seasonal Variation and Analgesic Properties of Different Parts from *Curcuma zedoaria* Roscoe (Zingiberaceae) Grown in Brazil

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This work describes the seasonal variation of curcumenol (**1**) and dihydrocurdione (**2**), two active terpenoids from different parts (roots, mother rhizome and rugous rhizome) of *Curcuma zedoaria* grown in Brazil. The analysis was carried out by high resolution gas chromatography, using external standards for determination. The results showed that both terpenoids are present in all the parts studied. However, *C. zedoaria* exhibited about three times more terpenoids in the mother rhizome in autumn than in other parts and seasons studied. The antinociceptive activity of the dichloromethane extracts from different parts and collected in different seasons was studied using the acetic acid-induced abdominal constriction model in mice. The extracts obtained from mother rhizome collected in autumn and winter at doses of 10 mg/kg body weight, i.p., caused considerable antinociceptive activity inhibiting 91.1 and 93.4% of the abdominal constrictions, respectively, whereas compounds **1** and **2** caused inhibitions of 64.0 and 46.0%, respectively. These results confirm that both compounds contribute to explain the antinociceptive effect of the plant but suggest that other compounds are also acting as analgesics.

Key words: *Curcuma zedoaria*, Curcumenol, Dihydrocurdione