P-164

Evaluation of Asarone Content in Essential Oil of Dryied and De-Rooted Rhizomes of *Acorus Calamus* linn

Osman M[1], Bahl J[2], Darokar M[2,*], Garg S[2], Lal R[2] And Khanuja S[2]

[1]*Medicinal and Aromatic Plants Research Institute, National Center for Research, Khartoum, Sudan;* [2]*Central Institute of Medicinal and Aromatic Plants, P. O CIMAP Lucknow – India; E-mail: magdabakar2003@yahoo.com*

The effect of drying and de-rooting of rhizomes of sweet flag (*Acorus calamus* Linn.*)* on its oil and asarone contents were evaluated. The studied samples were harvest from plants raised at CIMAP, Lucknow India. Alpha, Beta and gama (α, β, and γ) asarone content of Hydro-distilled essential oil obtained from fresh (**FR**), dried (**DR**) and decorticated dried (**DRD**) rhizomes were determined using GC/MS. β-asarone was the most dominant constituent in the oils constituting an average of 89.58% in **DRD**, 87.24% in **FR** and 82.95% in **DR**. α-asarone content was 1.61% in DRD and 1.43% in both DR The essential oil content was high in dried rhizomes (1.31 %) and removal of root reduced the oil content to the half quantity (0.52%). Results showed that drying rhizome gave higher oil content and slightly reduced asarone content. The process of de-rooting, which is commonly practiced by Indian producer, should be abandon to avoid oil loss and increase of its β-asarone content.

Keywords: Sweet flag, β-asarone, Dried Rhizomes, oil content.