

Analysis of essential oil of *Zingiber officinale* ROSCOE. rhizome cultivated in Isfahan

G. Asghari^{1,*}, A. Mostajeran², L. Shahkarami¹

¹Isfahan Pharmaceutical Sciences Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

²Department of Plant Sciences, School of Sciences, University of Isfahan, Isfahan, Iran

Background and Aims: *Zingiber officinale* ROSCOE. (Zingiberaceae) grows in hot and humid climate. This plant is used for the treatment of digestion, fever, vertigo and vomit. Ginger is imported to Iran mostly is used as a spices. In this study, ginger rhizome were cultivated in Isfahan and its main chemicals were analyzed.

Methods: Rhizomes of ginger were obtained from Thailand, UE, China and Singapor and cultivated in University of Isfahan glasshouse. The growth media was 10 cm diameter pots consists of perlite and cocoperlite. The cultivated rhizomes were extracted and then quality and quantity of chemicals were evaluated with TLC, GC, GC/MS methods.

Results: In spite of the different ginger sources, all of them are able to produce the main compounds of originated plant almost similar to parent's plant when cultivated in Isfahan climate. However the parent's plants were richer than cultivated one in constituents.

Conclusions: It seems the similarity of the main constituents of the cultivated and the parent's plant rhizomes guide to the conclusion that ginger can be cultivated in Isfahan.

Keywords: Ginger; *Zingiber officinale*; Cultivations; Volatile oil