**Evaluation of essential oil percentage diversity of Peppermint**

**(*Mentha piperita* L.) accessions in Iran**

Mehdi Mohebodini 1\*, Zahra Bashirzadeh 1, Roghayeh Fathi 1

1- Department of Horticultural Science, Faculty of Agriculture and Natural Resources, University of Mohaghegh Ardabili, Iran.

[mohebodini@uma.ac.ir](mailto:mohebodini@uma.ac.ir)\*

**Statement of Problem:** Medicinal plants are one of the rich sources of important compounds from ancient to the present; it has found a special place in the treatment of many diseases and has become an important reason for many studies on medicinal plants.

**Research Purpose:** The purpose of this study is the effects of different drying methods (shade and avon) on the essential oil (fifty percent flowering stage) of *Mentha piperita* L.

**Research Method:** Peppermint (*Mentha piperita* L.) from Lamiaceae family is one of the most widely used herbs that has many therapeutic effects. In this research, different accessions of *Mentha piperita* L. were collected from different regions of Iran. In the current investigation, we have examined the effects of different drying methods on the essential oil in peppermint under field conditions. The experiment was carried out in the randomized complete block design (RCBD).

**Results and Conclusion:**

One-way analysis of variance (ANOVA) results indicated significant differences between the 12 accessions of M. piperita in both drying methods. Mean comparison among the studied accessions also oven that the highest amount of essential oil content of 2.12% was obtained by an oven drying method. Also, the highest amount of essential oil content (2.12%) was belonged to Tabriz, and the minimum amount (0.52%) was belonged to Firoozabad. In contrast, the highest (2.06%) and lowest (0.44%) of essential oil content, Firoozabad and Tabriz, were obtained in oven drying method, respectively. The results confirmed that there is a considerable genetic variation among *M. piperita* accessions in Iran.

**Keywords:** Drying method, Essential oil, *Mentha piperita* L.