

The effect of air-drying on the volatiles composition of lemon thyme (*Thymus citriodorus*) and lemon verbena (*Aloysia triphylla*)

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Abstract:

The research investigates the effect of air-drying on the volatile composition of infusions prepared from

Thymus citriodorus (Pers.) Schreb and lemon verbena (*Aloysia triphylla* (L'Herit)). The fresh and the dried herbs were analysed over a period of one month for lemon thyme and ten months for lemon verbena. Both herbs lost 75% of their moisture within 5 days of picking and subsequently showed no further loss during storage. Drying and different periods of storage had a considerable effect on the aroma composition of lemon thyme and lemon verbena. Marked losses of many important aroma volatiles were observed on drying and this would be expected to give rise to different sensory properties of teas made from the fresh and dried herbs. The loss of compounds contributing to the lemon characteristics was marked, especially in lemon verbena.

Key words: air-drying; lemon thyme; *Thymus citriodorus*; lemon verbena; *Aloysia triphylla*; aroma composition; herbal infusion, SPME, GC/MS