Kaçar O, Göksu E, Azkan N (2009) Agronomic properties and essential oil composition of basil varieties and landraces (*Ocimum basilicum* L.) in Turkey. Asian Journal of Chemistry 21(4): 3151-3160.

Abstract

The objective of this study was to determine some agronomic properties, essential oil ratio and composition of some varieties and different sources of *Ocimum basilicum* L. landraces in Turkey. During 2002- 2003, field trials were conducted at Uludag University, Faculty of Agriculture, Department of Field Crops, Bursa, in South Marmara region of Turkey. Four varieties and six landraces of *Ocimum basilicum* L. were included in the study. Field trials were arranged in the complete randomized block design with three replications. As a result of this research, it was determined that the highest values of plant height (46.3 cm), green herb yield (4386.4 kg ha-1), drug herb yield (867.8 kg ha-1), essential oil ratio (0.90 %) and essential oil yield (8.02 L ha-1) were obtained from V-1. In addition, V-2 (0.88 %) and LR-5 (0.87 %) should be taken into consideration in terms of essential oil ratio. Taking into consideration of the chemical composition, it could be stated that the 'linalool' chemotype was found 80 % (V-1, V-2, V-3, V-4, LR-1, LR-3, LR-4 and LR-6), 'methyl eugenol/linalool' chemotype was found 10 % (LR-2) and 'methyl chavicol' chemotype was found 10 % (LR-5) of the investigated *Ocimum* landraces and varieties.