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# Allelopathic Activity of Some Turkish Plant Species

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## Abstract

Turkey is one of significant and unique country in the world from the stand point of plant genetic resources and plant diversity. Two of the Vavilov's Centre of Origin (Near Eastern and Mediterranean Centres) extend into country, indicating that Turkey is the one of the centre of origin and/or centre of diversity of several crop plants and many plant species. The flora of Turkey is very rich in wild medicinal, aromatic and ornamental plants, also. The potential of plant diversity of Turkey was determined and recognized by the plant explorers who worked in Turkey and found the most richest diversity of some cultivated plants, their wild and weed relatives and other wild plant species, than elsewhere. Although Turkey's flora with its existing diversity present potential for allelopathy researches, there is a lack of studies that screen the large number of Turkish plant species by bioassay for allelopathic activity. That is why, the main objective of current research is to screen allelopathic activity of some crops, herbs, spices medicinal and aromatic plants from Turkey and to determine strong allelopathic species for next studies. Regarding to this, dried samples of plant species supplied from herbalists in different cities in Turkey will be assayed by the Sandwich Method for allelopathic activity, using *Lactuca sativa* -lettuce- as the test plant. To evaluate allelopathic activity, standart deviation (SD) and SD of variance (SDV) of radicle growth inhibition will be calculated. This is the first comprehensive report on screening of large number of Turkish plant species by bioassay for allelopathic activity. Further studies would be applied to determine allelochemicals which cause allelopathic activity in regarding plants. Prospective data could provide a pathway to identify new natural chemicals that would serve sustainable agriculture.

**Keywords:** Allelopathic activity, Turkey, Sandwich Method, bioassay

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