عنوان مقاله:

Evaluation of allelopathic activity of 68 medicinal and wild plant species of Iran by Sandwich method

محل انتشار:

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خلاصه مقاله:

This experiment was conducted in Ferdowsi University of Mashhad, in 2011 to investigate the allelopathic potential of 68 medicinal and wild plant species belong to 19 plant families grown in Iran. Results showed that among examined plants, stigma and style of Crocus sativus, leaves of Artemisia kopetdaghensis, Mentha piperita, Zhumeria majdae, Frulago subvelutina, flowers bud of Eugenia caryophyllata, flower of Perovskia abrotanoides, fruits of Melia azedarach and Ruta graveolen had the strongest inhibitory effects on lettuce seedling growth. Interestingly by using of very low amount of plant samples (10 mg)growth inhibitory effects of these plants were observed by more than 70%. Additionally, the leaf of Atriplex canescens and the flower of Achillea millefolium had the strongest inhibitory effect on radicle growth (more than 75%) compare to the growth of hypocotyl (less than 20%). Here we can suggest that plants with inhibitory effects on growth and development of other plants have the potential to be applied as biological herbicides; this finding can be highlighted as new sustainable herbicides for biological control of weeds

کلمات کلیدی:

allelochemicals, biological herbicide, secondary metabolites, weeds