ALLELOPATHIC ACTIVITY STUDIES OF SOME MEDICINAL PLANTS AND SEAWEED EXTRACTS

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Allelopathy is the production of chemicals (allelochemicals) of a plant which can influence the growth and development of another plant. Medicinal plants and marine algae are known to produce a range of secondary metabolites with a variety of biological activities. The present work was carried out as a preliminarily study to investigate any possible herbicidal activity of the medicinal plants and seaweed extracts. Radish seed germination bioassay which is widely used in the detection of allelochemicals, throughout the world was carried out to examine 6 medicinal plant extracts and 2 seaweed extracts for seed germination inhibitory activity. Out of 8 extracts tested, *Acalyphaindica* **(**kuppaimeni**)**, *Phyllanthusniruri* **(**Keelkainelli**)**, *Ipomoea carnea* **(**Mampannchan**)**, and *Passifloraedulis* **(**Passion tree) have shown significant seed germination inhibitory activities, which might be due to the allelochemicals present in those plants. In the case of the methanol extract of *Ocimum sanctum* **(**thulasi**)**, *Pisoniagrandis* (Ilachchavattai or LettaCochchi) and *Halimeda discoida*, percentage seed germination enhancement and increased root length compared to the control (distilled water) were observed. Further studies are in progress with the hope of isolating natural products that are responsible for the above allelopathic effect of the medicinal plants and seaweed extracts.