

Seaweed effects on plant growth and environmental remediation: A review

ABSTRACT

Seaweeds are plants found in the sea that have tremendous applications in the fields of agriculture and environment. It comprises three giant classes with a large number of different species and their ability to adapt to the various conditions qualifies them more applicable to various environmental and agricultural arena. Agriculturally, both three classes Phaeophyta, Rhodophyta and Chlorophyta, have significant roles in promoting plant growth and productivity and soil protection as well as its reclamation with class Phaeophyta have the highest contribution due to its alginic acid content and other multifaceted components that are higher followed by Rhodophyta and Chlorophyta. Seaweed (living or dead biomass) has the ability to phycoremediate environment against heavy toxic metals and lessen the excessiveness of non-metal inorganic elements via physisorption, chemisorption with the aid of binding sites provided by proteins and carbohydrates functional groups existing in their cell walls and secretion of organic acids and intracellular transformation and accumulation. Seaweed is an important factor in environmental remediation and soil restoration processes