

Use of seaweed extracts from *Sargassum muticum* and *Ascophyllum nodosum* (Phaeophyceae) as a possible fertilizer

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Nowadays, with awareness of the needs to preserve the environmental resources and reduce the use of synthetic chemicals to improve the quality and productivity of agricultural crops, especially those used as a food, various studies have been developed, including the use of extracts from seaweeds that demonstrate possible potential as biofertilizer.

Several studies indicate that seaweeds are a rich source of many compounds such as macro- and micronutrients, amino acids, vitamins, and plant growth regulators, beneficial for plant development, conferring to seaweeds a great potential as a biofertilizer.

This study aimed to evaluate the potential of liquid extracts from two macroalgae, *Sargassum muticum* and *Ascophyllum nodosum* (infect seaweed to the Portuguese coast), as biofertilizers. Different varieties of *Oryza sativa* and *Lactuca sativa* were studied with extracts of seaweeds at different concentrations (0, 25, 75 and 100 %) applied for seed germination and plant development, in pots, and in hydroponics in the case of lettuce. It was found that extracts with lowest concentration (25%) favored the seed germination, increased soil mineral content, improved plant nutrient absorption and amended soil pH. Different extract concentrations also favored the plant development. The extracts obtained from a seaweed *Sargassum muticum* performed better results as biofertilizers.