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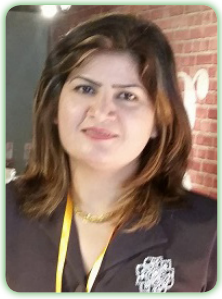

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Effects of brown algae (Sargassum sp.) as manure of growth of Pisum sativum

Brown Algae (Sargassum sp.) is used as manure to evaluate the effect on the growth of plant Pisum sativum L. Different concentrations (1%, 2%, 3% and 4%) of seaweed were prepared by adding specific amount of well dried powdered Sargassum in the soil and pea plant cultivar AP1 was cultivated in these concentrations. Growth of Pisum sativum L. 1%, 2%, 3% and 4% concentrations was compared with the growth of plant in control treatment. Vegetative growth characteristics such as plant height, number of leave, total fresh weight, total dry weight, fresh weight of leaves, fresh weight of shoot, fresh weight of roots, dry weight of leave, dry weight of shoot and dry weight of root were noted. In control height of experimental plant (Pisum sativum L.) was 18.58±0.81 cm, whereas on the other side height of plant in 1%, 2%, 3% and 4% was 17.31±0.51 cm, 10.98±0.57, 3.97±0.47 and 1.6±0.15 cm respectively. The average number of leave in control was 45.67±0.88 and in 1%, 2%, 3% and 4% were 42±0.67, 28±0.58, 18.33±0.67 and 0.67±0.01 respectively. Percentage germination was maximum (100%) in control and 1% whereas; in 2%, 3% and 4% concentration it was 88.89%, 44.44% and 22.22% respectively. Chlorophyll contents and ionic content of plants (sodium, calcium and potassium) were also determined. Results indicated a considerable decrease in chlorophyll, calcium and potassium ionic contents of plant. Whereas, drastic increase in sodium ion accumulation in plant from control to 4% concentration of Sargassum. Collectively the results showed that Sargassum sp. had negative effect on growth of plant Pistum sativum L. (cultivar AP1).

Biography

Ghazala Yasmeen Butt is currently working as an Associate Professor of Botany at GC University, Pakistan. She has completed her PhD degree in Botany from Karachi University and then joined University of London, Marine Biological Station Millport and Scotland to carry out her Post-doctoral research. She also participated in several international professional courses organized by various institutes in Germany, USA, Egypt, UK and Pakistan. She has expertise in algal culturing algal ecology and algal biofuel. She has 68 research publications in national and international journals.

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