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Study on the biochemical characteristics of fresh water algae from Allahabad region

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ABSTRACT : Algal biomass is significant source of nutrients because of its biochemical constituents. Algae are an important raw material for many industries i.e. from medicine to fertilizer and from fodder to food. Algae are the feedstock for many industrial products like alginate derivatives, carrageenan and agar-agar but they are also widely consumed as food in many countries. In the present study five algal species were selected namely, *Vaucheria* sp., *Microcystis* sp., *Oedogonium* sp., *Nostoc* sp. and *Diatom* sp. Biochemical characteristics of the algal samples were evaluated by analysing the cell viability, estimating protein content, estimation of chlorophyll and carotenoid content and extraction of lipids from algae. Cell viability of algae reduces as the culture grows old. Protein content, Chlorophyll content and lipid content found in algal species had no correlation with each other as for example *Nostoc* sp. was found to contain moderate protein content but highest lipid content. From the study it was concluded that algal biomass is a significant source of biochemical constituents, which can further be utilized as animal feed or fodder.

Key Words: Algal biomass, *Vaucheria* sp., *Microcystis* sp., *Oedogonium* sp., *Nostoc* sp. *Diatom* sp. and biochemical characteristics.