

ABSTRACT

Experiment was conducted in Phycology Lab Department of Botany, Government College University Lahore, to investigate the effect of freshwater algae on the seedling and vegetative growth of *Brassicaceae oleraceae* L. Var. Madhuri and Pelican. Different concentrations of FLF (25%, 50%, 75%, 100% and control) were prepared. The parameters like GP, MGT, GI, GE, and SVI were measured. In in-vitro experiment, the readings like GP, GM, GE, MGT and SVI were maximum at 100% FLF concentrations. The chlorophyll content, photosynthetic efficiency, plant growth rate, nitrogen content, crude protein content and epicotyl length were maximum at 100% FLF concentration for *Brassica oleraceae* L. Var. Madhuri & Pelican. In ex-vitro experiment, 75% FLF concentration proves effective in increasing TSL, RL, SL, and FW as compared to 25%, 50% & 100% FLF concentration and control. In vegetative growth experiment, the parameters like TPH, GP, RL increase with increase in FLF concentrations upto a certain limit. The plants which are given 75% of FLF concentrations show increase in growth as compared to the plants given high (100%) and low (25% & 50%) FLF concentrations and control. The plants treated with 100% FLF concentration has more ionic content. Amount of sodium, potassium and nitrogen present in plants treated with 100% FLF concentration is high as compared to plants treated with 25%, 50% and 75% FLF concentrations and control.