

ABSTRACT

Bio-fertilizers are of much importance for the plants which have higher nutrient requirements. The study aims Isolation and purification of blue green algae strains, optimization of cultural conditions for biomass products of algae and application of blue green algae as bio-fertilizers. Optimum conditions for production of biomass of blue green algae were when 3.0 g of blue green algae was inoculated in 1.5 liters of CHU's 10D media (without nitrogen source) and incubated in light source of 1500 lux at 37-40°C in 0.5 vvm aeration for two weeks. Maximum growth (wet mass) obtained was 70mg/ml in 90 days. These bio-fertilizers affected growth of rice plants by increasing the height of plant by 18 inches and broadness of leaves by 0.73 cm on average as compared to the control.