

ABSTRACT

Conduction of experiment was being done in Phycology lab, Department of Botany, GCUL, for understanding the effect of algal liquid fertilizer on the seedlings of Chili (var. Anaheim and Bala). Different level of concentrations like 25%, 50%, 75%, 100% and control were prepared and applied to seeds in vitro. Some of the parameters were being observed where; GP (73.33), GI (0.366), GE (53.33), MGT (124.615) and SVI (576.86) were observed which highest for Anaheim variety in control group was. For 100%, GP (6.667), GI (0.333), GE (53.33), MGT (124.615) and SVI (576.86) were lowest in Anaheim variety. In control group, highest SL (1.0974), RL (6.959), TSL (9.0114) and FW (1.611) were calculated. And lowest was being observed in 100% plate with SL (0), RL (0.0067), TSL (0) and FW (0). In case of Bala, highest rate of growth was being observed in control group with GP (100), GI (0.5), GE (100), MGT (296) and SVI (423.2). Lowest rate was being found in 100% group with GP (40), GI (0.2), GE (40), MGT (34) and SVI (41.52). In case of vegetative growth, highest growth rate was being observed in control group with SL (1.298), RL (7.046), TSL (7.046) and FW (2.101) and lowest in 100% plate with SL (0.438), RL (1), TSL (1) and FW (0.567) calculated. Highest Chl. Content (0.44), photosynthetic rate (0.237), Nitrogen content (3.78), plant growth rate (0.42) and crude protein (14.87) calculated in 100% plate of Anaheim. In case of Bala, highest Chl. Content (0.46), photosynthetic efficiency (0.587), Nitrogen content (0.59), plant growth rate (0.59) and crude protein (16.76) calculated. In pots experiment, highest growth rate of GP (100), GI (0.05), GE (66.67), MGT (160) and SVI (3003.22) calculated in 25% ALF. In case of Bala, highest GP (100), GI (0.05), GE (60) obtained in 25% plate while MGT (174) and SVI (3904) obtained in control group. Vegetative growth of plants with highest rate was being observed in control group with RL (2.934), SL (1.298) and TSL (7.046) and lowest in 100% plate find out. In Bala variety highest growth rate found out in control group with TSL (13.52), RL (16.713) and SL (8.246) and lowest in 75% ALF with TSL (11.2), RL (15.198) and SL (7.378) calculated. ALF proved helpful for the growth of Chili (var. Anaheim and Bala) for increasing yield with up to 50% ALF. Some other factors, related to soil identification, soil nutrients and chemical analysis can also be calculated for improving the work field.