

ABSTRACT

The effect of different nickel chloride concentrations, ranges from 50 to 300 with an increment of 50 mg/kg of soil, (50, 100,.....300) on the growth and physiological attributes of the wheat (*Triticum aestivum* L. Var. Bhakar-02 and Shafaq-06) were determined. Soil was amended with different nickel chloride concentrations to make six treatments. Growth parameters such as plant height, number of green and senescent leaves, number of tillers per plant, biomass (fresh and dry weight of shoots and roots and plant height) and reproductive parameters (number of ears/plant, ear length/plant, rachis length/plant, number of spike-lets/ear, number of grains/ear, grains weight/plant, 1000 grain weight and straw weight) were studied. There was a reduction in growth and biomass in concentrations of nickel. A reduction in number of green and senescent leaves, number of tillers and height of plant was observed in Ni concentrations. Photosynthetic rate was 66 % and 67 % in T6 of Bhakar-02 and Shafaq-06 respectively. Similarly, reduction in transpiration rate and stomatal conductance was also recorded that ranged 71 % and 72 % and 89 % and 69 % in Bhakar-02 and Shafaq-06 respectively. The present study suggests that increase in Ni concentration, overall growth of seedling was adversely affected.