Effect of Zinc Nitrite on growth of *Phaseolus aureus* plants

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ABSTRACT

The present paper focused on the pulses species. For growth, yield and development of pulses fields in India. Pulses are very rich in protein which is important for human body building and play a key role in crop rotation due to their ability to fix nitrogen. 23.12 (approx) million hectares pulses are cultivated in entire India. 14.66 (approx) million tones average production of pulses and 700kg (approx) average productivity per hectare. *Phaseolus aureus* is alternatively known as mung bean and green gram, which is one of the semi arid crop, one of the legume crop grown mainly for nutritional valued edible seeds. Mung bean are high in carbohydrates, fats, proteins, vitamins and minerals. Nutrition value of seeds like 100grams of seeds gives 441 kj (105 k cal). The present paper focused for effect of zinc nitrite on various growth and developmental parameters in this plants. Seeds were collected from the agricultural family from a village and sterilized with 0.3% hydrogen peroxide (H2O2) for 20 minutes. Zinc nitrite solution prepared with different concentrations like 0, 20, 40, 60, 80, 100ppm. Seeds were grown in petriplates lined with filter paper two lined. In each petriplates 10ml of zinc nitrite solution with different concentrations and seeds added. Each treatment including the control was replicated three times. Which are kept under diffused light at room temperature 28 +_2. Percentage of seed germination observed in various parameters. Like root length, shoot length, percentage of phytochemical stress and phytototoxicity were caluculated in 7 days old plants. Plant growth, development and phytoitoxicity 52% inhibition takes place. And percentage of phytotoxicity and growth was observedred at 40ppm amd 60ppm Zn treatment comapared to controlled onece. Effect of ZnNo concentrations increased petriplates are investigation going on and were observing the plant growth parameters.

Key words: *Phaseolus aureus*, zinc nitrite, phytoitoxicity, seed germination.