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Title: Efficacy of Cadmium in managing Fusarium wilt of Tomato (*Solanum lycopersicum* L.) under in vitro condition

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Abstract: m, 60ppm, 80ppm, 100ppm and 120ppm) on *Fusarium oxysporum* grown in vitro. Concentrations of cadmium optimized by inhibition of growth percentage of inoculums of *Fusarium oxysporum*. Growth percentage inhibited in 40ppm-21.05%, 60ppm-31.57%, 80ppm-57.89%, 100ppm-100% and 120ppm- 100% for 7days treatment. And for 14 days treatment, growth percentage inhibited 100ppm- 73.68%, 120ppm-100%. Above all concentration these two concentrations (100ppm and 120ppm) were found to be effective on *Fusarium*. So, tomato plantlets were treated in media supplemented with these two concentrations of cadmium (100ppm and 120ppm) for different time periods (100ppm and 120ppm 7 days treatment, 100ppm and 120ppm 7 days treatment + 7 days recovery, 100ppm and 120ppm 14 days treatment) under invitro condition. The effect of cadmium on treated plants were studied with biochemical analysis of anthocyanin, proline, total soluble sugar and chlorophyll content and molecular analysis of total protein content followed by 1-D SDS-PAGE in contrast to control. The data obtained shows an increase in anthocyanin, proline, soluble sugar and protein content of treated as well as recovered plant were observed. Chlorophyll content was found to be decreased. This insignificant change in chlorophyll content may be due to in vitro condition. Perhaps chlorophyll estimation may not be suitable for in vitro studies.

Description: Efficacy of Cadmium in managing Fusarium wilt of Tomato (*Solanum lycopersicum* L.) under in vitro condition

Subject: Biotechnology

Theme: Efficacy of Cadmium in managing Fusarium wilt of Tomato (*Solanum lycopersicum* L.) under in vitro condition

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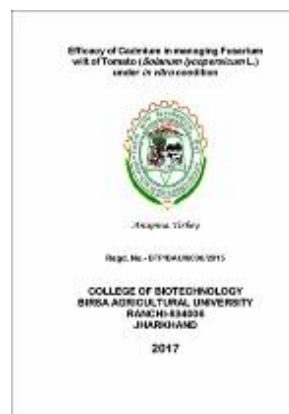
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