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Abstract:	Banana is the world largest fruit crop which is being affected by a disease called fusarium wilt caused by Fusarium oxysporum f. sp. cubense (Foc). Cadmium induces various functional-based alterations in plants. In the present study, efficacy of cadmium against Fusarium oxysporum in Grand Nain variety of banana was checked under in vitro conditions by optimising cadmium concentration. Effective cadmium treatment (supp lemented in liquid Murashige and Skoog (M S) media) given to banana plant grown in- vitro for 7 days and 14days, after 7 days recovery also given. The effect of cadmium was 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 so obtained shows an increase in anthocyanin, proline, soluble sugar and protein content of treated as well as recovered plant however insignicant change in chlorophyll content was observed. This increase was related as a defence mechanism to cope up the cadmium induced stress condition by different mechanism like osmoregulation, full utilisation of source and sink, antioxidant action, etc. Chlorophyll estimation was not found efficient in in vitro study. These aspects can be utilised further in production of transgenic resistant variety of banana.
Description:	Efficacy of Cadmium in managing fusarium wilts in Grand Nain variety of banana under in-vitro conditions

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