

INFLUENCE OF AGRO-ENVIRONMENTAL POLLUTANTS ON A BIOCONTROL STRAIN OF *BACILLUS VELEZENSIS*

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There is an increasing request for new process in plant protection to manage control over diseases and minimize the negative impacts of synthetic pesticides. Integrated Pest Management is an eco-friendly alternative agricultural approach in which biological, chemical and physical devices, resistant crop cultivars and modification of cultural practices are combined to give stable, long-term protection, and prevent or reduce pest infestations. Biological control has an importance for the reduction of plant diseases. Pesticide-tolerant biocontrol agents are preferred in integrated pest management as such strains can be applied in combination with different pesticides or after the pesticide treatment. Biocontrol agents are environmentally friendly and can remarkably control plant diseases, but these agents could be sensitive to the different xenobiotics used in the agriculture. We studied the effects of some widely used herbicides and fungicides on the growth of potential biocontrol agent *Bacillus velezensis* strain. The presence of sulfonylurea herbicides, like bensulfuron-methyl, cinosulfuron, chlorsulfuron, ethoxysulfuron, triasulfuron and primisulfuron-methyl strongly inhibited the biomass production of the strain at the concentration of 6.25 mg l⁻¹. Contact fungicides like captan, maneb, mancozeb and thiram resulted in total inhibition at the concentration as low as 6.25 mg l⁻¹. The sterol-biosynthesis-inhibiting fungicides imazalil, fenarimol, penconazole and tebuconazole showed inhibition in a concentration dependent mode.

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