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Biological control of red rot of sugarcane disease by using *Trichodermaharzianum in vitro* condition

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Red rot is a serious disease of sugarcane in the southern United States. It causes a rot of seed cuttings that commonly results in faulty stands of plant cane or sometimes complete failures, reductions in stands of stubble or ratoon crops because of the rotting of the underground parts of the stem from which the crops arise, and annual losses of sucrose in mill cane from infection of the stalks that usually follows injury by the sugarcane moth borer, *Diatraeasaccharalis.*

The fungus that causes red rot may infect any part of the sugarcane plant. Its principal importance is as a rot of the stalk of standing cane, of seed cuttings, or of the stubble pieces remaining in the ground after the cane is harvested. It produces long lesions on the leaf midribs. The lesions usually cause no serious injury to the plant but are important in the life history of the disease because they are sources of the spores that cause infection of the stalk

Trichodermaharzianum is an eco-friendly organism that does not cause any harmful and side effect of human beings and domestic animals when handled. This research is based on the principle of biological control of fungal disease infection in sugarcane by the use of *T. harzianum*. Culture of *T. harzianum* was isolated from agricultural soil and was used in vitro (laboratory) condition for the control of red rot disease in sugarcane. The present study used *T. harzianum* as bio control agent to control red rot diseases, investigating of effectiveness of the control agent. Satisfactory result was obtained in *T. harzianum* biological control agent against *Colletotrichumfalcatum.*

Biography

S Gomathinayagam has completed his PhD at the age of 33 years from University of Madras, Tamil Nadu, India. He is the Director of University of Guyana, Berbice Campus, Tain, Guyana. He has published more than 35 papers is reputed journals and filed three national patent in protein, and serving as an associate editor member of reputed journal. He is serving board of Director's national research institute.

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