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Biological Control of Plant Diseases

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Abstract: *Every organism gives birth to its offspring in an environment that is suitable for it. Optimal nutrition provides the needed energy. Organisms compete with one another for mastery over one another and for this food. In general, sources of food for the strongest were discovered to be lower creatures or weaker individuals. In the current state of nature, a reversible cycle between microbes and large species is ongoing. Here is a case study with Trichoderma harzianum and Sclerotium rolfsii. Both belong to the Deuteromycetes phylum. However, careful examination revealed that trichoderma consumed sclerotium mycelium, providing relief from the sclerotium-related sickness. Since January 2017, these observations have been taken into consideration. repeated ten times in a row.*

Keywords: Biological Control, Phytoremediation, and Plant Diseases

I. INTRODUCTION

In biological control or phyto-remediations, weaker organisms are absorbed by naturally strong ones in order to restore and sustain their energy level. When saprophytic or parasitic fungi were discovered to be interdependent, other fungi were discovered to be productive for the crop where the harmful organisms were discovered to be recessive. Various scientific communities successfully conducted a variety of tests and provided advice to the farmer communities on how to preserve crop production and maximise profits. In this approach, bacterial illnesses can be managed by bacterial, fungal illnesses can be managed by fungus, and viral illnesses may be managed by virus.

II. MATERIAL & METHODS

On the basis of straightforward observations, sick portions of diseased plants were taken from an open field. Diseased components and materials were brought to the lab for additional research. To obtain pure isolates, distinct isolates were obtained and raised individually. Following the confirmation of purity, 2 grammes of each

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substance were combined in equal amounts for 15 days in a Petridis, and these times were increased to 30 days. Simple droppers and borosilicate glassware were utilised for the experiments. Nearly all of the outcomes were comparable. Results were recorded and visualised. Additionally used were photo graphs.

Observation.

Lycopercicum esculentum and *solenum melongena* were crop plants. And pathogens were *sclerotium* and *trichodema.* Rotten materials due to pathogens were minutely observed butphoto graphs were not included with this paper. The powdery black rust like structure can be seen easily. The similar structures were also seen under petridisc.

III. DISCUSSION

On the basis of Alexopolus (1907- 1979) classification offungi & bergey's manual (1970), *Trichoderma harzianum.* and *Sclerotium rolfsii* were found controlled were observed in these minute observations, where as the similar observations were observed by rust. Dekaboruah, H.P. and Dileep Kumar, B.S. (2003) enumerated *Rhizoctonia* wilt suppression of brinjal (*Solanum melongena L*) and plant growth activity found by *Bacillus BS2*. Deshpande, M.V.(1998) presented Biopesticides, in CSIR Golden Jubilee Series and again in (2000) enumerated Mycopesticide production: Contribution of fungal morphologies in the biopesticide formulations. Devoto, A.; Musket, P.R. and Shirasu, K. (2003) studied explained the role of ubiquitination in the regulation of plant defence against pathogens and supported current opinion in plant biology. Dhaliwal, G.S. and Arora, R. (2000) explained components of insect pest management as a critique way and now they are engaged in the trends in agricultural insect pest management. Dileep Kumar, B.S. (1996) studied crop improvement and disease suppression by a *Bacillus spp. SR2* from peanutrhizosphere. Domnas, A.J. and Warner, S.A. (2002) critically reviewed

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andfound that biochemical activities of entomophagous fungi were found effective.,

IV. CONCLUSION

Phytoremediations were fruitful tools for the prevention of diseases as well as the protective majors for the sustainable environment though the biological control methods were applied locally but it is assumed the its impacts will be global and It might be the successful manner for restoration of environment.

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