## Development Action Plan, DAP

"Vegetable – From seed to table and Beyond" in Module 3

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## Three topics the most useful

- Economic Analysis of Project
- Development communication
- Systems thinking and integrated agriculture in development project





# Application of *Trichoderma hazianum* for Chili Disease Control in sustainable agriculture

In recent years the importance of sustainable agriculture has risen to become one of the most important issues in agriculture. In addition, plant diseases continue to play a major limiting role in agricultural production. The control of plant diseases using classical pesticides raises serious concerns about food safety, environmental quality and pesticide resistance, which have dictated the need for alternative pest management techniques. It has been the *Trichoderma spp.* used aggressively to control plant diseases.



## Objective

To evaluate the efficiency of antagonistic fungi for controling the disease on chili to reduce the chemicals use.

To develop a handbook of biological control on chili disease for promoting to farmers



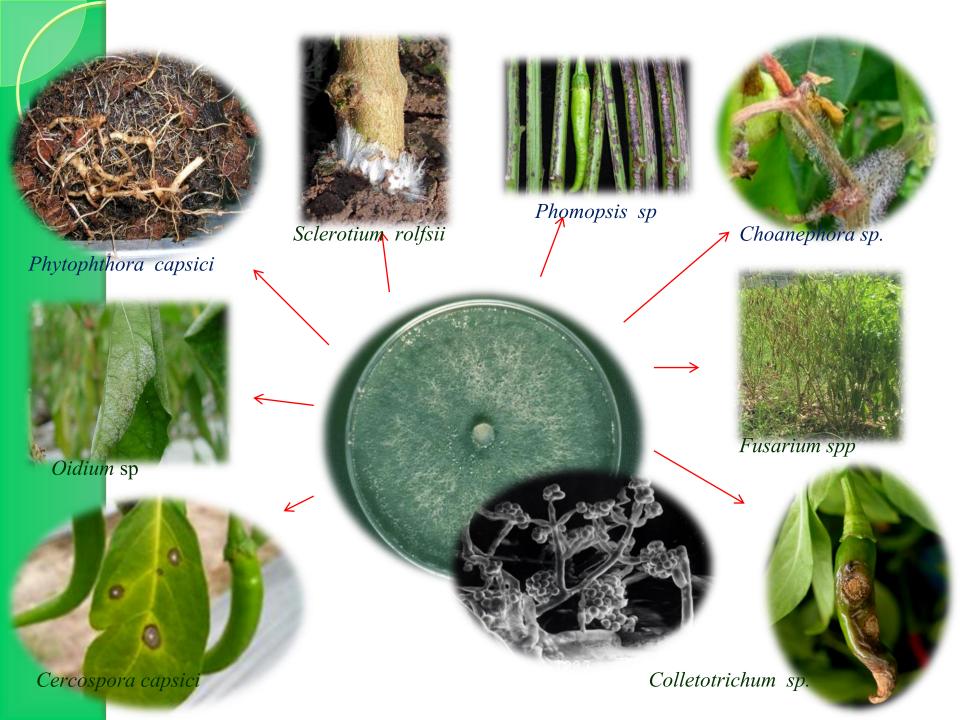
#### Trichoderma hazianum.





Green colony on media

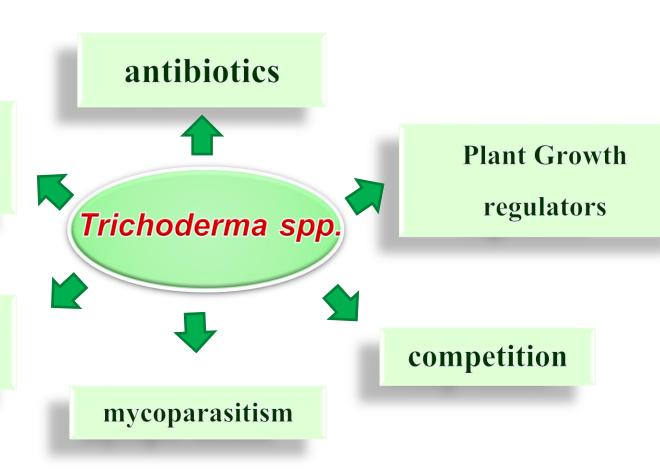
conidia and conidiophore



#### **Mechanisms Trichoderma of Disease Control**

Increase photosynthesis

induced resistance.



## **Product**



**Stock solution** 



fresh culture



Liquid Formulation



**Powder** 



granule

## Materials and Methods



Trichodema formulation

Soaking seeds



Fresh culture+substance

Preparing seedling tray

spraying seeds



Spraying the seedlings



Adding Trichoderma substance



Spray every 10 days



Harvesting stage

## Action Plan

No	Activity plan	2017											
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ост	NOV	
1	Research plan meeting												
	-GAP/GMP certification	<b>—</b>											
	-Budget												
2	Planting			<del></del>			$\rightarrow$						
3	Data collection of chilli disease					<del></del>		$\rightarrow$					
4	Conclustion								$\leftrightarrow$				
5	develop a handbook of biological control on chili												
	disease												

## Challenge

Non Target diseases











