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The U.S. Government's Global Hunger and Food Security Initiative

# *Trichoderma* for Crop Production



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**USAID**  
FROM THE AMERICAN PEOPLE



## *Trichoderma* spp. (Deuteromycetes, Moniliales)

- *T. harzianum*, *T. viride* and *T. hamatum* are common species used in biological control.
- *Trichoderma* is an avirulent plant symbiont that occurs in all agricultural soils.
- Highly competitive and displays antagonism against other pathogenic fungi.
- Colonizes plant root system and protects them from soil-borne pathogens.
- Decomposes organic material in which it grows.
- Plant growth promotor.
- Solubilizes and sequestrates inorganic nutrients.
- Releases compounds that activate plant defense mechanism.
- Successfully cultured for use as a biofungicide.
- Used in food and textile industry.





## Trichoderma Production



*Trichoderma*  
production in India



*Trichoderma* production  
in Cambodia



*Trichoderma* production  
in the Philippines



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## Trichoderma Production in Indonesia





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## Production of *Trichoderma* in Bangladesh





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## Trichoderma Workshops



Conducted six workshops and trained over 200 people from Africa, Asia, and Central America In production of *Trichoderma*.





## Effect of *Trichoderma* on Crop Growth

Broccoli- Indonesia



Garlic- The Philippines



Gross sales – onion/hectare in the Philippines

With *Trichoderma* = P217,020.00 (\$5,106.35)

No *Tridchoderma* = P171,284.36 (\$4,030.22)

Difference = P54,283.12 (\$1,277.32)

Okra- India



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Thank You.