

TrichoEdge

IN CONTROLLING PESTALOTIOPSIS DISEASE ON RUBBER



MECHANISM & BEST PRACTICE IN CONTROLLING PESTALOTIOPSIS

- 1 Endophytic *Trichoderma* spores germinate on surface of leaves
- 2 Mycelia of endophytic *Trichoderma* will colonize the space in between leaf cells
- 3 After sufficient colonization, a layer of protection will be formed on colonized leaves
- 4 This layer of protection will prevent further spread of the pathogen to neighbouring trees thus reducing the disease's infectivity
- 5 For optimal protection, it is best to ensure spraying activities reach all foliar surfaces
- 6 It is advisable to conduct spraying during clear weather. Avoid spraying on a rainy day
- 7 Endophytic *Trichoderma* should be given sufficient time to germinate for optimal results
- 8 Raining after spraying may affect the degree of protection conferred by endophytic *Trichoderma*. In such circumstances, reapplication is recommended for optimal results.



WHAT IS PESTALOTIOPSIS DISEASE?

• Pestalotiopsis is a disease caused by fungus infection on the foliage part of the rubber crops and currently has infected almost all rubber clones in Malaysia causing severe leaf fall problem. This disease is caused by the *Pestalotiopsis sp.* fungus and is believed to also contribute by other pathogens such as the *Colleotrichum sp.* and *Fusarium sp.*



HOW TO CONTROL PESTALOTIOPSIS DISEASE?

• By using our bio-control product, **TrichoEdge** which is proven, viable, sustainable, protection and eco-friendly alternative to environmentally damaging chemical-based fungicide. It can be used on various crops such as rubber, paddy, oil palm, fruit and vegetable.






TrichoEdge: PRODUCT STRENGTHS

- Able to control disease caused by fungus through biological approach and harmless to human.
- Product pH between

pH 7 to pH 8



APPLICATION METHOD

- 1  Dilute according to the recommended specific dilution ratio which is 1kg:500 liter (L) per hectare
[1kg product diluted in 500 liter (L) of water]
- 2  The water source used to dilute the product must be clean and chemical-free. However, the usage of tap water is permissible.
- 3  Use a jack power sprayer for application. Sprayer shall be kept clean and free from any chemical solution or pesticide. It is best to use a new sprayer specifically for bio-control application usage.

SPRAYING METHOD

Spray on the foliar surface. Make sure all foliar surfaces are covered for an efficient protection and performance.

APPLICATION FREQUENCY

- Minimum of **4 to 6 rounds** of application is recommended.
- Interval between rounds is **10 to 14 days** duration.

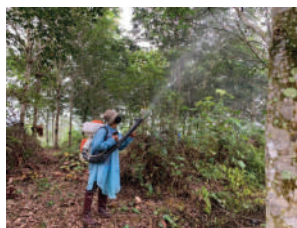
PRODUCT STORAGE

- Store in cool and dry area away from food.
- Avoid high temperatures.
- Optimum storage is at room temperature.
- Product shelf life is up to one year.



EQUIPMENTS NEEDED DURING SPRAYING APPLICATION

- Power sprayer. Suitable nozzle size shall be used for an efficient spraying. Suggested nozzle size is between 350 L/Ha to 450 L/Ha.
- Spray and tape (tagging work)
- Pole (for tall, matured trees)
- Personal Protective Equipment (PPE)
- Spray paint and caution tape



PROGRESSION OF BETWEEN APPLICATIONS

01 BEFORE APPLICATION



02 1ST APPLICATION



03 2ND APPLICATION



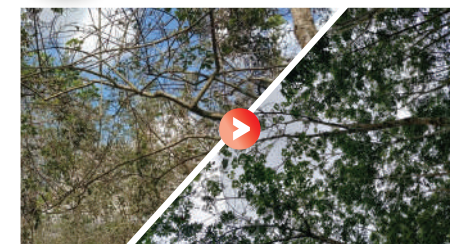
04 3RD, 4TH, 5TH and 6TH APPLICATION



05 THE MARKED TREE CONDITION



06 BEFORE AND AFTER



The leaf fall rate is reduced and the foliar managed to be maintained on the tree for longer time.



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