AG 06

EVALUATION OF SELECTED CHEMICAL, BIOLOGICAL FUNGICIDES, AND INDUCED RESISTANCE TO CONTROL WHITE ROT (*Sclerotium rolfsii Sacc.*) ON TOMATO

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Introduction

Tomato is one of the economic crop in Cambodia which it is consume as fresh fruit and tomato source. *Sclerotium rolfsii sacc* is one of the most destructive diseases and spread faster when the environment condition are favor. This research is aim to Evaluation of selected chemical, biological fungicides, and induced resistant to control white rot *(Sclerotium rolfsii sacc)*.

Objective

To evaluation of selected chemical, biological fungicides, and induced resistance to control white rot (*Sclerotium rolfsii sacc.)* on tomato.

Methodology

The Source of isolated was collected from an infected tomato field in Siem Reap province in Cambodia, and pour cultured in PDA media. The experiment conducted twice consist of 9 treatments with 6 replications while the first trial, all the application started as the curative, and the second trial started as prevention and curative when symptom appeared except biological control and induced resistance which applied before inoculate.

Pour culture that collected from the field and culture on PDA plate

1cm of tip used to dig on PDA plate and transferred into media

100g of rice grain mixed with 50g of sand and sterile in autoclave

Growth of mycelium after incubated for 14days

Mycelium start colonized and girdle the stem of tomato

Result

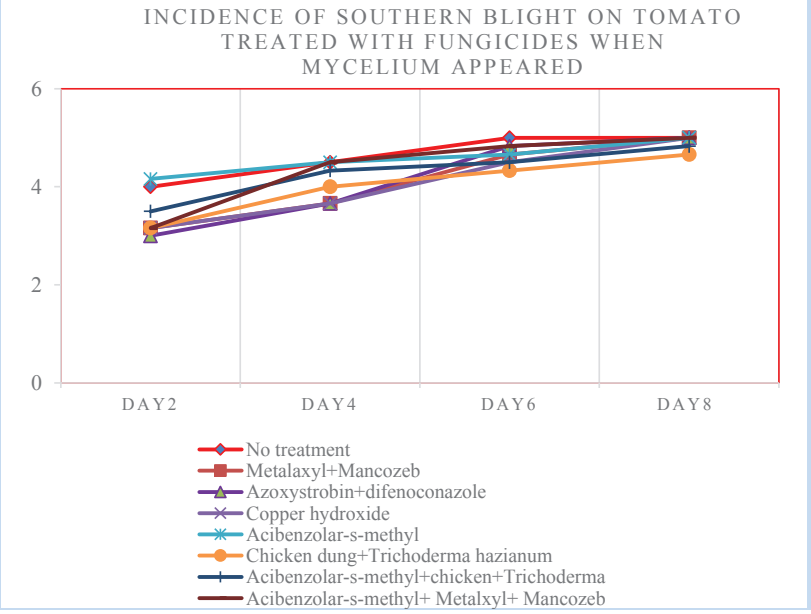
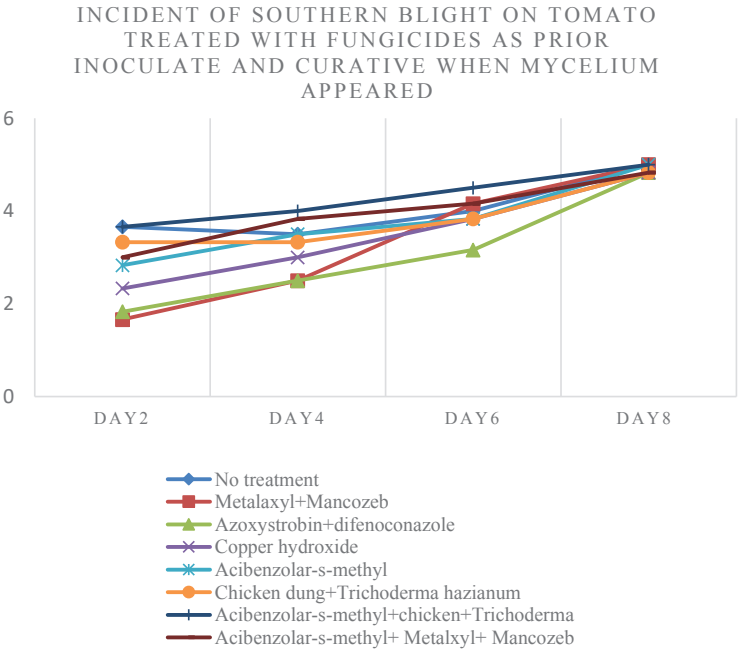


Figure1: pathogenicity test of *Sclerotium rolfsii sacc.* on tomato



Some applications were applied prior to inoculation and after curative when symptoms appeared systemic fungicide Azoxystrobin + Difenoconazole is higher significant different ($P<0.05$) and more effectively suppressed the fungal growth.

Discussion

Control of this pathogen using a chemical, biological fungicide to control white rot seem very challenging. However, control as preventative and curative still be the best methods which it is higher inhibited germination than start curative alone.

References

- Agrios, G. (2005). Plant pathology 5th ed, *Elsevier Academic Press*. Amsterdam.
- Anthony, P., Keinath, V., & Dubose, B. (2017). Management of southern blight on tomato with SDHI fungicides. *Crop Protection*, 29-34.

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