

## Effect of non-chemical materials on the control of rice blast disease<sup>1</sup>

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### Abstract

Rice blast is one of important diseases in rice production in Taiwan. The non-chemical materials were used to evaluate the efficiency of control rice blast disease at the first and second crops in this study. After screening the non-chemical materials for control of rice blast disease, most effective material was Clover oil, the incidence of rice leaf blast disease was 4.5%. However, the best material for control of rice ear blast disease was Neem oil. The rice leaf blast disease could be suppressed by Clover oil and Ferric chloride in the organic farming field. The control rates of rice leaf and ear blast disease were 55% and 52%, respectively, by resistance inducing substance Phosphite. In the following test at the second crop, data showed that Phosphite had the same effect as Tricyclazole on control of the rice blast disease. The most effective non-chemical material from marketing for rice leaf blast at the first crop was *Trichoderma* sp. and Cinnamon oil, and for rice ear and branch blast at the second crop was showed significant difference with control. The effect of *Trichoderma* sp., *Bacillus* sp. and Cinnamon oil on control of branch blast was same as Tricyclazole after spraying at early tillering, tillering, before booting and full heading stage of rice, respectively.

Keywords : rice, organic farming, rice blast, non-chemical measures.

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1. Research article No.220 of Hualien District Agricultural Research and Extension Station.

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