

EFFICACY AND POLYPHENOL ACCUMULATION ON INDUCED RESISTANCE AGAINST RICE LEAF SPOT BY SALICYLIC ACID AND AGERATUM EXTRACT

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Summary

In recent years, beside the outbreaks of major pests, several minor diseases are getting more important in plants. The fungus of *Curvularia* sp. is one of the agents of grain discoloration and a pathogen of leaf spot disease on foliage of rice plants. Now, area of rice cultivation towards the practice of organic agriculture is increasing, to limit effect of chemical pesticides to human health and environment. Induced resistance is a safe method of pest management and has achieved some good results. Therefore, research was conducted to evaluate disease reduction and survey a mechanism of induced resistance against leaf spot in rice plants treating by salicylic acid 1 mM or Ageratum leaf extract 4%. The results showed that the disease reduction of treated rice plants was approximately 28.62-31.93%. Moreover, salicylic acid 1 mM and Ageratum leaf extract 4% helped rice leaves accumulate more polyphenols at infected sites of *Curvularia* at 6, 24 and 48 hours after inoculation, compared to the water control.

Keywords: *Leaf spot, Curvularia sp., Ageratum leaf (Ageratum conyzoides), induced resistance, rice, polyphenol accumulation.*