

**EFFECT OF TRIAZOLE FUNGICIDES ON *Magnaporthe oryzae*
tritricum TO CONTROL BLAST OF WHEAT: IN PROCESSES
OF REACTIVE OXYGEN SPECIES GENERATION
AND ANTIOXIDANT DEFENSE RESPONSES**

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Executive Summary

Blast is an important disease of rice that significantly reduces the plant growth and productivity. Proper management can ameliorate dysfunction in and improve the plant growth and productivity. Therefore, the present study was conducted to explore the protective role of the triazole fungicide in helping wheat seedlings to tolerate blast disease. Ten-day-old hydroponically grown seedlings were allowed to inoculation of *Magnaporthe oryzae tritricum* (MoT) spore suspension and with the fungicides (0.6 g L^{-1}) for the next six days. Compared to control, the level of H_2O_2 and $\text{O}_2^{\cdot-}$ in the seedlings exposed to blast pathogen alone increased significantly that observed by histochemical detection. Electrolyte leakage in both shoot and root also increased after inoculation of pathogen. Therefore, leaf relative water content, growth and biomass also decreased. However, the application of triazole fungicide reduced H_2O_2 and $\text{O}_2^{\cdot-}$ production as well as electrolyte leakage. Thus, improve growth and biomass of wheat seedlings. These results indicate the exogenous application of triazole fungide is a promising approach to improve blast tolerance in wheat plants. Further investigation is needed under field conditions to determine the blast-tolerance induced by triazole fungicide application.

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