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## **A Rice Blast Fungus Alpha-N-Arabinofuranosidase B Elicits Host Defense in Rice**

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Rice blast disease caused by *M. oryzae* is the most devastating fungal disease in rice. During the infection process, *M. oryzae* secretes a large number of glycosyl hydrolase (GH) proteins into the apoplast to digest host cell wall and assist fungal ingress into host tissues. In this study, we identified a novel *M. oryzae* arabinofuranosidase B (MoAbfB) which is secreted during fungal infection. Live-cell imaging exhibited that fluorescent labeled MoAbfB was highly accumulated in fungal invasive structures such as appressorium, tips of penetration peg, biotrophic interfacial complex (BIC), as well as invasive hyphal tip. Deletion of *MoAbfB* mutants extended biotrophic phase followed by enhanced disease severity, whereas, over-expression of *OsMoAbfB* mutant induced rapid defense responses and enhanced rice resistance to *M. oryzae* infection. Furthermore, exogenous treatment of MoAbfB protein showed inhibition of fungal infection via priming of defense gene expression. We later found that the extract of MoAbfB degraded rice cell wall fragments could also induce host defense activation, suggesting that not MoAbfB itself but oligosaccharides (OGs) derived from MoAbfB dissolved rice cell wall elicited rice innate immunity.