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## Biochemical basis of selective disease controlling activity of mepanipyrim

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### Abstract:

Mepanipyrim exhibited excellent disease control activity against *Botrytis cinerea*, but poor activity against *Cochliobolus miyabeanus*; however, the mycelial growth of *C. miyabeanus* was inhibited more strongly than that of *B. cinerea*. Therefore, disease control efficacy by mepanipyrim *in vivo* is not correlated with mycelial growth inhibition *in vitro*. While mepanipyrim prevented pectinase secretion in *B. cinerea* at 0.1–1 µg/ml, it did not interfere with secretion in *C. miyabeanus*, even at 100 µg/ml, indicating that its action is an important mechanism in disease control. Mepanipyrim affected the uptake of glucose and phenylalanine in the mycelia of both pathogens at higher doses. Thus, a secondary action of mepanipyrim may bring about mycelial growth inhibition *in vitro*.

### Keywords:

anilinoypyrimidine, mepanipyrim, fungicide, *Botrytis cinerea*, mode of action

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