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ONLINE ISSN : 1349-0923

PRINT ISSN : 1348-589X

Journal of Pesticide Science

Vol. 30 (2005) , No. 3 pp.203-208



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Monitoring of the Sensitivity of *Magnaporthe grisea* to Metominostrobin 2001–2003: No Emergence of Resistant Strains and No Mutations at Codon 143 or 129 of the Cytochrome *b* Gene

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(Received: September 21, 2004)

(Accepted for publication: April 11, 2005)

Abstract:

The sensitivity of *Magnaporthe grisea* to Metominostrobin (ORIBRIGHT[®], a QoI fungicide) was examined. Six isolates collected in 1999, prior to the introduction of metominostrobin, were tested by conducting *in vivo* assays to establish a baseline for the sensitivity of the fungus. The mean value of the EC₅₀ (ranging from 0.65 to 11.8 µg/ml) was 3.3 µg/ml. Ninety isolates were collected in 2001–2003 and 56 isolates were subjected to *in vivo* assays. EC₅₀ values ranged from less than 0.1 to 9.4 µg/ml and no significant difference to the baseline was observed. A point mutation at nucleotide position +428 or +387 in the cytochrome *b* gene, resulting in the replacement of glycine 143 with alanine (G143A) or of phenylalanine 129 with leucine (F129L) at the amino acid position of cytochrome *b* known to be the cause of resistance to QoI, was not observed in any of the 96 field isolates including the six collected in 1999. © Pesticide Science Society of Japan

Keywords:

metominostrobin, cytochrome *b*, *Magnaporthe grisea*, point mutation



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To cite this article:

Yasuo Araki, Minoru Sugihara, Haruko Sawada, Hiroyuki Fujimoto and Michio Masuko,
“Monitoring of the Sensitivity of *Magnaporthe grisea* to Metaminostrobin 2001–2003: No
Emergence of Resistant Strains and No Mutations at Codon 143 or 129 of the Cytochrome *b*
Gene”. *J. Pestic. Sci.* Vol. **30**, pp.203–208 (2005) .

doi:10.1584/jpestics.30.203

JOI JST.JSTAGE/jpestics/30.203

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