

Author: [ADVANCED](#)Volume Page Keyword: 

[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

ONLINE ISSN : 1349-1008

PRINT ISSN : 1343-943X

Plant Production Science

Vol. 11 (2008) , No. 1 134-138

[\[PDF \(468K\)\]](#) [\[References\]](#)

Responses of Rice Genotypes Carrying Different Dwarf Genes to *Fusarium moniliforme* and Gibberellic Acid

[Liangyong Ma](#)¹⁾²⁾, [Zhijuan Ji](#)²⁾, [Jinsong Bao](#)¹⁾, [Xudong Zhu](#)²⁾, [Ximing Li](#)²⁾, [Jieyun Zhuang](#)²⁾, [Changdeng Yang](#)²⁾ and [Yingwu Xia](#)¹⁾

1) Institute of Nuclear Agricultural Sciences, Zhejiang University

2) State Key Laboratory of Rice Biology and Chinese National Center for Rice Improvement, China National Rice Research Institute

(Received: February 5, 2007)

Abstract: A total of 32 rice genotypes carrying different dwarf or semi-dwarf genes were inoculated with the fungus *Fusarium moniliforme* Sheldon or treated with 50 mg l⁻¹ GA₃ in order to select resources resistant to rice bakanae disease from the dwarf materials. The length of the elongated seedlings was measured, and the percentage of death of the seedlings after transplanting to field was also counted. A significant correlation was found between the length of the seedling treated with GA₃ and disease injury by bakanae fungus. Rice materials carrying dwarf gene such as *sd1* were not only sensitivity to GA₃ but also susceptible to rice bakanae disease. Materials carrying dwarf gene *d1* were insensitive to GA₃ but susceptible to bakanae. On the other hand, all materials carrying *d29*, *sd6* or *sdq(t)* genes showed resistance to bakanae. The present study indicated that dwarf and semi-dwarf rice materials might be useful resources for improvement of bakanae resistance in rice breeding programs.

Keywords: [Bakanae disease](#), [Dwarf gene](#), [Gibberellic acid](#), [Oryza sativa L.](#), [Rice](#), [Sd1](#)

[\[PDF \(468K\)\]](#) [\[References\]](#)

Download Meta of Article [\[Help\]](#)

[RIS](#)

To cite this article:

Liangyong Ma, Zhijuan Ji, Jinsong Bao, Xudong Zhu, Ximing Li, Jieyun Zhuang, Changdeng Yang and Yingwu Xia: "Responses of Rice Genotypes Carrying Different Dwarf Genes to *Fusarium moniliforme* and Gibberellic Acid". *Plant Production Science*, Vol. **11**, pp.134-138 (2008) .

doi:10.1626/pp.11.134

JOI JST.JSTAGE/pp.11.134

Copyright (c) 2008 by The Crop Science Society of Japan



[Japan Science and Technology Information Aggregator, Electronic](#)

