

Magnaporthe grisea

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Magnaporthe grisea

147

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Vegetative Compatibility Groups in Population of *Magnaporthe grisea* (Hebert)

Barr, the Causal Agent of Rice Blast in Mazandaran Province

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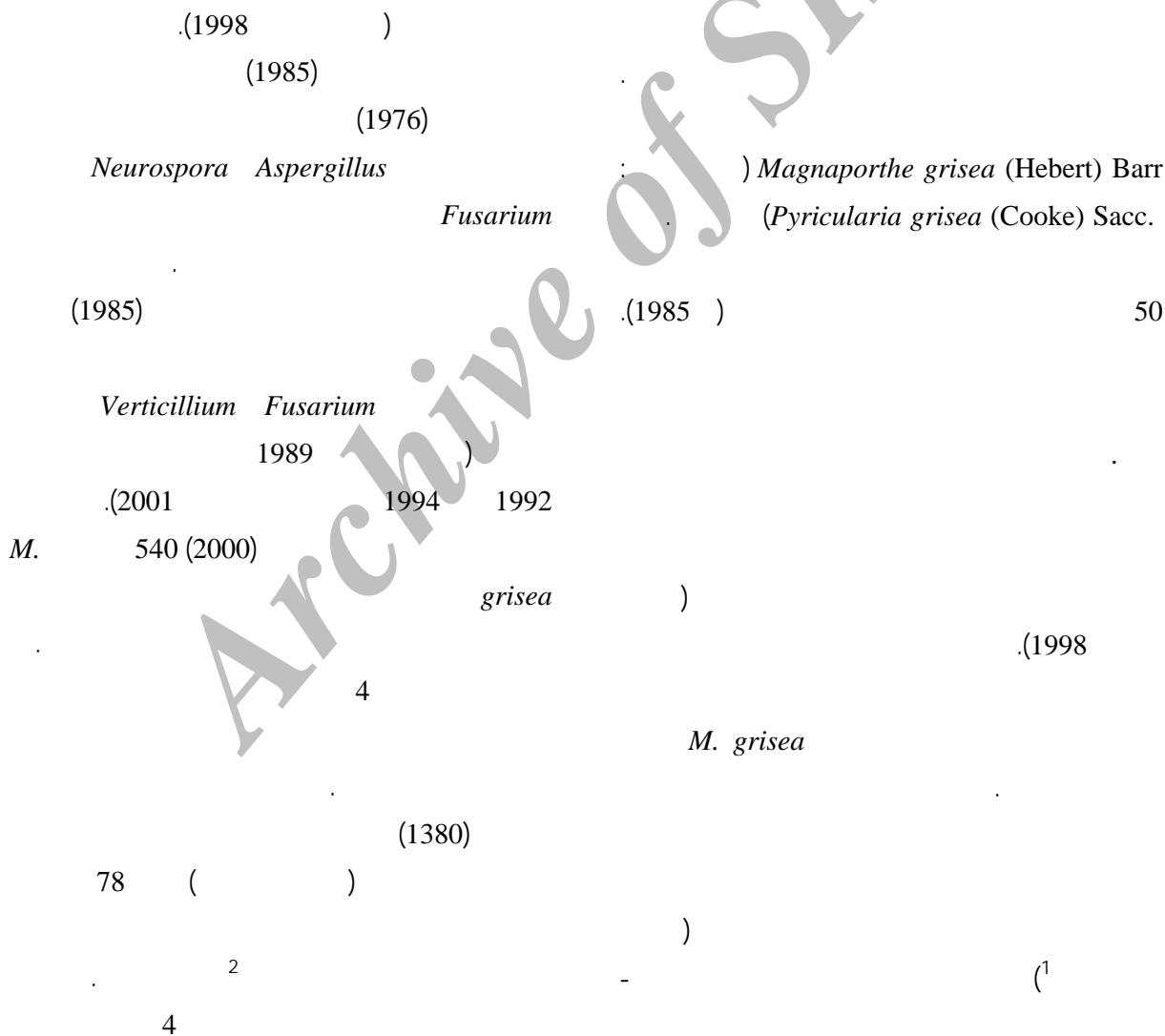
Abstract

Vegetative compatibility groups of *Magnaporthe grisea* was determined using nit mutants of 147 monoconidial isolates collected from different areas of Mazandaran province. Nit mutants were selected from fast growing sectors on MMC medium. Two hundred twenty- two nit mutants were

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| /1 | 18 | / | ... | 206 |
| | | | | 1387 |

selected and kept for experiment related to genetic complementation. Phenotype of nit mutants was identified using sodium nitrate, sodium nitrite, hypoxantine, ammonium tartarate and uric acid. Most of the nit mutans (50%) belonged to nit1 phenotype. Each mutant was crossed with tester isolates. As a result three vegetative compatibility groups were identified among rice blast isolates in Mazandaran region. VCG2 was the most abundant group and VCG3 had the lowest number of isolates.

Key Words: Mazandran, Rice Blast, Vegetative compatibility group



²Nit mutant complementation tests

¹Nit

20 °C



¹ Minimum medium

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M. grisea

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26 28 °C

15

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¹ Lineage

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M. grisea

26 28 °C

M. grisea

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M. grisea

Magnaporthe

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27

147

120

grisea

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VCG

| | | | | |
|----|----------------|-----|----------|---------------|
| V1 | 76/5/13 | A1 | A | Rat-6 |
| V1 | 76/5/9 | C2 | C | Sht-25 |
| V2 | 77/5/20 | B1 | B | Soa-4 |
| V2 | 77/6/1 | E1 | E | Kon-6 |
| V2 | 77/6/1 | F2 | F | Ash-8 |
| V2 | 77/5/18 | F13 | F | Sht-4 |
| V3 | 78/6/3 | D1 | D | Rat-11 |

(2004)

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26/53

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F B E

6/12

3

Soa-
Sht-25 Rat-6

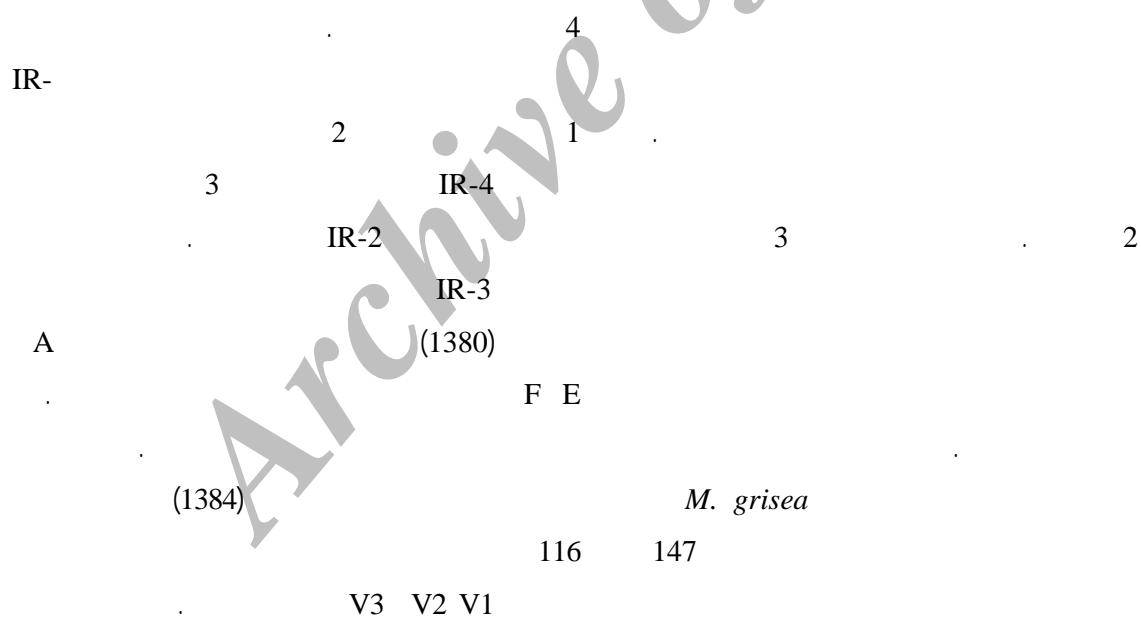
Sht-4 Ash-8 Kon-6 4

67/34

Rat-11

M. grisea

() Iso-13 () Iso-58 1



(1380)

IR- IR-3 IR-2 IR-1

| | | | | |
|----|----|---|-----|------|
| /1 | 18 | / | ... | 212 |
| 2 | 1 | | | 1387 |

2 1

6 (2004)

A

3/4 3/2 1/7 1/7 28

F E D C B

M. grisea

62

DNA

M. grisea

Pot2

M. grisea

3

D

3

()

F A

Magnaporthe grisea

1380

170

1384

317 305

2

Magnaporthe grisea

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