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abstract content

Disease Notes

First Report of Rice Blast Caused by *Pyricularia grisea* in California

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Rice blast, caused by *Pyricularia grisea* (Cooke) Sacc., generally recognized as the most important disease of rice (*Oryzae sativa* L.) worldwide, was first found in the Sacramento Valley of California in 1996. Symptoms observed in commercial fields during September and October consisted mainly of darkened lesions at the panicle neck node and flag leaf collar. Many of the panicles with neck rot were partially filled or blank. Disease foci were irregular within fields and the most severely affected areas had approximately 50% of the panicle necks with symptoms. Initial identification of *P. grisea* was made by isolating the fungus from panicle neck nodes and leaf collars on potato dextrose agar. Subsequent identifications were made by placing symptomatic panicle neck nodes or leaf collars on moist filter paper in petri dishes to allow sporulation of the fungus. *P. grisea* was consistently recovered from these tissues and was identified by conidial morphology. A survey of over 500 rice fields in five Sacramento Valley counties was conducted in September and October 1996. Rice blast was confirmed in 33 commercial fields, which are spread over an area of approximately 460 km^2 in Glenn County (27 fields) and northern Colusa County (6 fields). No blast was found in Butte, Sutter, or Yolo counties. *P. grisea* was recovered from cvs. M-201, M-202, M-204, M-103, M-401, S-102, L-204, and Calmochi-101 and several proprietary lines. To confirm pathogenicity of *P. grisea*, cv. M-201 was

inoculated in the greenhouse 28 days after seeding with a suspension of 20,000 conidia per ml of sterile deionized water, covered with plastic bags for 2 days, and evaluated 7 days later. *P. grisea* isolates from cvs. M-201, M-202, and M-204 produced typical leaf and collar blast symptoms on inoculated plants, whereas control plants remained asymptomatic. *P. grisea* was consistently recovered from lesions on inoculated plants. No rice cultivars currently grown in California are known to have resistance to blast.
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