

DISEASE NOTE

FIRST REPORT OF *ACIDOVORAX AVENAE* SSP. *AVENAE* ON RICE IN ITALYP. Cortesi¹, F. Bartoli¹, C. Pizzatti¹, W.Y. Song²
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Rice panicle sterility and rice grain discolouration have recently increased their incidence in Italy. Early diagnosis for both diseases is extremely difficult since diseased plants are symptomless. In 2003 incidence of rice panicle sterility in Lombardy (northern Italy) was 1.8%, and the estimated crop loss was 1.5%. The spatial distribution of sterile panicles suggested a seed-borne bacterial etiology. Grain discolouration can have multiple causes; our data disagreed with a suggested fungal etiology, highlighting the possible role of bacteria. In this study, we tested the hypothesis that rice panicle sterility and rice grain discolouration are associated with *Acidovorax avenae* ssp. *avenae* (*Aaa*), a destructive seed-borne bacterium in tropical and subtropical environments. Fifty-three sterile panicle samples and 46 rice samples with more than 4% discoloured grains were analyzed for the presence of *Aaa*. Light tan coloured colonies typical of *Aaa* ($N > 200$) were purified from sterile panicle and discoloured rice samples. All strains were tested for poly- β -hydroxybutyrate (PHB) accumulation and identified by PCR. For PCR, DNA of each Italian strain (IAa) and known rice strains CAa4 and CAa6 were tested by classical PCR using *Aa*-specific primers Oaf1/Oar1 and rice *Aaa*-strain-specific primers Aaaf3/Aaar2 (Song *et al.*, 2004). All Italian strains were positive for PHB, and were PCR positive. Strains IAa93, 210, 258, and CAa4 were tested for pathogenicity in corn and in rice seedlings and all caused soft rotting. This is the first report of *Acidovorax avenae* ssp. *avenae* on rice in Italy.

Song W.Y., Kim H.M., Hwang C.Y., Schaad N.W., 2004. Detection of *Acidovorax avenae* ssp. *avenae* in rice seeds using BIO-PCR. *Journal of Phytopathology* **152**: 667-676.

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TWO GRAPEVINE VIRUSES IN AN ORNAMENTAL *VITIS* SPECIES FROM SCOTLANDP. Saldarelli¹, M.A. Castellano¹, B.D. Harrision²
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Two plants of *Vitis coignetiae* (Crimson Glory vine), an ornamental species, were observed in mid-September 2004 in the gardens of Falkland Palace, at Falkland, Fife (Scotland). One of the vines grew vigorously and had uniformly green foliage, whereas the other was stunted and had smaller leaves with a strong reddish colouration of the interveinal tissues, but leaving a narrow green band along the primary and secondary veins. These symptoms recalled those of leafroll disease in red-berried *Vitis vinifera* cultivars. Leaves and canes were collected from both vines and examined by RT-PCR with primers used routinely in Bari for detection of *Grapevine fanleaf virus* (GFLV), *Grapevine virus A* (GVA), *Grapevine virus B* (GVB), *Grapevine leafroll-associated virus 1* (GLRaV-1), *Grapevine leafroll-associated virus 2* (GLRaV-2), *Grapevine leafroll-associated virus 3* (GLRaV-3), *Grapevine rupestris stem pitting-associated virus* (GRSPaV), and *Grapevine fleck virus* (GFkV). Amplified products of the expected size were obtained from the discoloured vine only with primers specific to GVA (430 bp) and GLRaV-1 (398 bp). Amplicons were recovered from the gels, cloned, and sequenced. The 430 bp fragment had a 91% nucleotide sequence identity with the coat protein (CP) gene sequence of GVA (Minafra *et al.*, 1997), whilst the 398 bp fragment had a 87% identity with the duplicate CP gene of GLRaV-1 (Fazeli and Rezaian, 2000). Particles decorated by a GVA anti-serum were seen under the electron microscope in dips from the red-coloured leaves. None of the viruses was detected in the plant with green foliage. It seems more likely that the symptomatic vine came from an originally diseased source than that it was infected locally by mealybug vectors of GVA and GLRaV-1.

Fazeli C.F., Rezaian M.A., 2000. Nucleotide sequence and organization of ten open reading frames in the genome of grapevine leafroll-associated virus 1 and identification of three subgenomic RNAs. *Journal of General Virology* **81**: 605-615.

Minafra A., Saldarelli P., Martelli G.P., 1997. Grapevine virus A: nucleotide sequence, genome organization and relationships in the *Trichovirus* genus. *Archives of Virology* **142**: 417-423.

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