First report of *Acidovorax avenae* subsp. *avenae* causing bacterial leaf blight of tea in Taiwan

I-Hsin Sung¹ · Yi-Ru Lai¹ · Chien-Jui Huang¹

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Severe leaf blight was observed on tea (*Camellia sinensis* L. cv. Sijichun) with the disease incidence of 60% in commercial orchards in Mingjian, central Taiwan from 2019 to 2020. The infected plants showed brown expanding lesions on the petiole bases of the young leaves and became completely blighted while the disease progressed. A bacterium was consistently isolated on nutrient agar from disinfected symptomatic tissue. Two representative isolates, CsNT01 and CsNT02, were identified by comparison of 16S rDNA sequence and multilocus sequence typing with concatenated sequences of *gmc*, *ugpB*, *pilT*, *lepA*, *trpB*, and *gltA* genes (Feng et al. 2009). The sequences were deposited at GenBank under accession Nos. MT192602–MT192603, and MT199266–MT199277. The 16S rDNA sequences of the isolates shared 99.92% identity to that of *A. avenae* subsp. *avenae* type strain ATCC 19860 (EU024134) by BlastN analysis. Phylogenetic analysis of the six concatenated genes revealed the tea isolates well clustered with *A. avenae* subsp. *avenae* strains. The tea isolates presented phenotypic characters similar to *Acidovorax avenae* as determined with API 20 NE system (Biomérieux). For fulfillment of Koch's postulates, tea cv. Sijichun seedlings were inoculated by immersing leaves in a bacterial suspension (1×10^7 CFU mL⁻¹ in 0.05% Silwet L-77) for 30 s. The inoculated plants were incubated at 28 °C for 3 days in closed plastic bags and subsequently for 4 days on a greenhouse bench. The artificially inoculated tea leaves showed brown lesions indistinguishable from those caused by natural infection. The control leaves remained symptomless. The causal

bacterium was repeatedly isolated from the blighted leaves and confirmed by PCR with the primers Aaaf5, Aaaf3/Aaar2 (Song et al. 2004). Recently, bacterial blight of tea caused by the same pathogen has been reported in China (Geng et al. 2017). To our knowledge, this is the first report of *A. avenae* subsp. *avenae* causing bacterial leaf blight of tea in Taiwan.

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Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Research involving human participants and/or animals The authors declare that no human participants and animals were involved in this study.

Informed consent This manuscript is new and not being considered elsewhere. All authors have approved the submission of this manuscript.

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✉ Chien-Jui Huang
chienjui.huang@mail.ncyu.edu.tw

¹ Department of Plant Medicine, National Chiayi University, No. 300, Syuefu Rd, Chiayi City 60004, Taiwan, Republic of China